DIGITIZATION OF BEAUFORT GRANULAR RESOURCE INFORMATION

NOGAP Project A4-19

Final Report

Submitted to:

Robert Gowan
Geotechnical Advisor,
Land Management Division
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Prepared by:

John Peters
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SUMMARY

This report describes the work undertaken to build a digital database of seismic and sidescan track information from the Beaufort Sea. Methods used to compile, digitize and convert the data into the DIAND geographic data management system format are described. The final content and organization of the database is summarized, and recommendations for the use of the data and its ongoing upgrade are discussed.

INTRODUCTION

The completion of the granular resources inventory for the Beaufort Sea requires the compilation of an extensive body of geographic data, including numerous maps, charts, trackplots, and site plans of previous bathymetric and high-resolution marine geophysical surveys, borrow resource evaluations and geotechnical investigations. Further evaluation of the granular resource potential of specific borrow areas and the planning of future studies to confirm or delineate granular materials require the selective locating, searching, manipulating, displaying and updating of the available geographic information. This can be undertaken most efficiently and economically using a computerized spatial database.

The Natural Resources and Economic Development Branch has an in-house microcomputer-based, spatial database system which can store and overlay or combine various types of spatial information with any other data in the Branch's computer spatial database for the same region. Information can be displayed or plotted as a series of computer-generated maps of individual or combined parameters such as date and type of survey or study, owner of the data, and data quality and quantity. The system will permit automated management of geographic location and areal extent data for site surveys and granular resource deposits.

The Beaufort Granular Resources Working Group recommended that the NOGAP A4 project give high priority to the compilation of a spatial database of granular resources information, and representatives of the major Beaufort petroleum operators and GSC agreed to make their data

available. Most of the recent government data for marine geophysical surveys was already in a digital format. This project involved the digitization, in a format which is totally compatible with the Branch spatial database system, of spatial data for all other available bathymetric, geophysical, geological and geotechnical surveys and studies and the plotting of site survey location maps and updated trackplots. Initially, highest priority was given to the compilation and plotting of information for the Isserk and Erksak Borrow Blocks. The data compiled in this study will be used by DIAND to determine the extent and quality of available information and the need and priority for additional surveys at each potential granular borrow source.

The spatial database is to be linked to a microcomputer-based catalogue of non-graphic information on the numerous bathymetric, geophysical, geological and geotechnical surveys and studies, which is stored in a dBase III format. The catalogue, or descriptive database, of offshore granular resource-related studies and surveys will permit access to details on the type, quantity, quality of data collected, the level of interpretation, etc. or to specialized geological, geotechnical and other non-graphic data for any mapped granular deposit. This granular resources database system will permit more thorough and detailed analysis of the offshore granular resource information which will greatly enhance the Department's ability to manage this important resource.

COMPILATION

Seismic and sidescan track data for the Beaufort digital database came from a variety of sources:

1. Post-1982 government data were in a digital form in SUPER-TECH format files at Earth & Ocean Research (Meagher, 1987). This data required only conversion to the DIAND format using specially developed software.
2. Pre-1983 government data were compiled by O'Connor and Associates (O'Connor, 1984; O'Connor and King, 1981)

and were supplied in the form of copies on dilar (plastic). The 1981 compilation was incorporated into the later one and presented on three maps showing:

shallow seismic tracks 1970-1980
sidescan tracks 1970-1980
shallow seismic tracks 1981-1982

The three maps had been reproduced on a 250 000 scale base map prepared for the Beaufort petroleum operators using a pastiche of three UTM grids with a superimposed polyconic grid.

3. Pre-1984 industry regional lines were compiled on a set of maps prepared for the petroleum operators. Copies of the following maps were provided for this project by DIAND:

Gulf 1981
Gulf 1982
Esso 1977-1982
Esso 1983
Dome 1978-1979
Dome 1980-1982

These maps had been reproduced on dilar using the base map described in item 2 above.

4. All available site survey data shot in the Beaufort by the three major Beaufort operators and compiled for DIAND by McElhanney Geosurveys (McElhanney, 1988) as part of a related study (NOGAP Project A4-15) were supplied directly by McElhanney:

Dome - 40 sites
Gulf - 19 sites
Esso - 35 sites

These maps had been reproduced on diazo prints, with one print for each site. The source map names are listed in association with the relevant digital databases in Appendix I.

McElhanney (1988) reports that the Gulf and Dome site survey data is essentially complete. The Esso maps did not arrive until after the end of the compilation phase of the project and therefore were not able to be digitized within the timeframe or budget.

5. In parallel with McElhanney's effort, Earth & Ocean Research sought digital data directly from Esso and from Gulf. Eventually, digital files of all of

Esso's, Gulf's and some of Dome's high resolution survey track data arrived, but too late to be easily incorporated into the granular resource database. While the data were prepared in an MS-DOS readable format by Esso and Gulf, respectively, the data in both cases were not organized into "study-specific" groups which could be conveniently linked to a site survey interpretation or operations report.

In any case, an attempt was made to build this linkage using the McElhanney (1988) database as a guide. However, the lack of systematic naming and numbering of the lines precluded an automated approach, and it quickly became clear that manual correlation of lines with studies was not feasible as a cost free exercise.

DIGITIZING

Tools

Earth & Ocean Research's SUPER-TECH workstation (described in appendix III) was used to build the digital track databases. The workstation consists of hardware - IBM compatible computer, digitizing table, high resolution graphics monitor and plotter; and software - digitizing routines for maps and seismic data and display routines for conversion to AUTOCAD DXF files for presentation editing and plotting. The software permits the digitizing and output of maps at any scale and in any of the following projections:

- Lambert conformal conic
- Mercator
- Polyconic
- Stereographic
- Universal transverse mercator
- Transverse mercator

Method

Most of the track data, consisting of site surveys, were provided in UTM projection at various scales. The regional data, items 2 and 3 above, were provided on a polyconic grid at 250 000 scale.

Each map was laid out and secured on to the digitizing table, with the area of interest centred in the active region of the table. For oversized maps (those larger than the active digitizer region), the map was digitized in parts. In fact as explained below, many of the maps were somewhat distorted and could not be reliably digitized over a large area. In these cases, the boundaries of the registered areas were restricted generally to about 60cm by 60cm squares.

Each registered area was designated a site, identified by a 2-letter site ID. Data for each line digitized within the site were stored in a separate file. Each file had a filename closely related to the actual line name, prefixed with the site ID. Thus, for site ID T1 and the line name DHR-7803, the filename was:

T1780300.TRK

Since there may have been several lines digitized within a given site, all had filenames prefixed with T1. Also, the filenames of all the lines were maintained in an index file called TRACK.ID, or specifically for the example above:

TRACK.T1

To summarize, the data for each line were stored in a separate file whose filename was keyed to the site ID. All filenames were referenced in an index file for that site.

In general for large maps, there were a number of sites covering the map area. The data and associated index files were maintained in a separate subdirectory for each source map.

When the digitizing was complete for a map, an AUTOCAD drawing file was generated at the same scale and projection as the source map. This was plotted and overlayed on the original for quality control. Digitizing errors were detected and corrected at this stage.

Content

The basic requirement agreed between Earth & Ocean Research and the scientific authority was a graphical database which showed essentially the coverage of each line with a line label and start and end fix labels. It is likely, however, that one of the common uses of this information will be to identify data segments of potential use in interpretation. With only start and end fixes shown, the search through seismic data records for appropriate parts of the line will be difficult. In order to build a more useful database, intermediate fixes as well with their associated labels were digitized according to the following guidelines:

- for regional lines every marked fix, in addition to extra points required to define the shape of the line were digitized. In cases where fixes are unlabelled or inconsistent (fairly often as discussed below), the fix is digitized, but no label is assigned.
- for site surveys, where the fix interval is almost always constant, four or five fixes are digitized on approximately straight lines, or as many fixes as required to define large deviations in the path.

Our intent is to provide enough information so that the user will easily be able to infer the fix ranges along a line within an area of interest.

File manipulation

The SUPER-TECH data files have been organized to centralize all data for a given map into a single index file. The philosophy is that each map, either a compiled regional lines map or an individual site survey map, best defines the content of a study.

Thus multiple index files for a given source map (or study) have been concatenated, and parts of a single line which

span more than one site have been combined into a single file. It is a listing of these files, along with brief descriptive comments which constitutes appendix I. Also, it is this organized data set which is used to create the DIAND format databases.

Problems

There were several problems encountered while digitizing the track data, both for the regional datasets, and the site surveys.

Regional data. All of the regional lines have been compiled on the industry base map described in the compilation section above. Although determining the projection parameters was difficult - the legend states only that it is polyconic, and does not specify the central meridian or central parallel - a fair fit was established to the polyconic projection with central parallel 70N and central meridian the centre of each registered area. The same degree of fit was obtained to the overlayed UTM grid. In any case, because the maps were presented on dilar copies, there was in some cases, distortion especially in longitude where the scale is dependant on the constancy of the copier roller speed. For this reason individual registration areas were restricted to approximately 60cm by 60cm squares to minimise potential registration errors. Although this decreased efficiency, as a result we are able to guarantee the accuracy of the fix locations to better than 250m (from the 250 000 scale source) 95% of the time, and to better than 500m 100% of the time.

Note that the industry base map has been used extensively by a number of workers - Earth & Ocean Research, O'Connor and Associates, Canadian Seabed Research, for example - all of whom have had difficulty with the map.

Site survey data. The site survey maps provided by McElhanney presented their own set of problems, largely due to distortion (again) from the diazo copying process, and as a result of copying a folded original. In many of the maps the UTM grid is non-linear, varying from tick to tick by as much as 2%. By restricting the registered area to 60cm by 60cm and by avoiding, if possible, crossing over grid discontinuities, digitising accuracy was maintained to better

than 1mm at all scales 99% of the time. Thus, for 10 000 scale maps, the positional error is less than 10m, for 25 000 scale maps less than 25m, and so on.

DATA CONVERSION

A conversion program was written to convert the SUPER-TECH format data into the DIAND database format. The conversion process is performed on a site by site basis. This means that there is a DIAND database for every map, consistent with the study concept defined in the section titled "File manipulation" above.

The program works as follows:

- the site ID is specified and the associated index file read to determine the name of the first SUPER-TECH track data file to process.
- each data record in the SUPER-TECH data file consists of a fix number (or day/time) and its associated latitude and longitude. These are read and stored as variables. The fix is assigned to a DIAND format text entity to function as a label. The lat/long coordinate pair is converted to UTM and assigned as a DIAND format line coordinate as well as a point location for the placement of a symbol. If interpolation between the digitized data is specified, then linear interpolation is made between the current and previous point at the specified increment.
- This process is repeated for each record in the file.
- at the end of the first data file, the index is read again to locate the second SUPER-TECH data file name. This is processed as above.
- the procedure is repeated until all index references are read.
- a new site ID can then be specified to begin the conversion of another database.

DIAND FORMAT DATABASE STRUCTURE and USAGE

The DIAND format for the track data requires three types of files. One which contains the digitized and interpolated data coordinates, two index files which contain pointers to the line data and text entities, and a file containing the text string associated with each text entity.

General description of the DIAND format

The data file is made up of 120 character length records made up of eight 15 character length coordinate pairs each consisting of the following items:

- a one digit identifier number used to describe the geographic nature of the accompanying UTM coordinate. The identifier can have the following values and meanings:

value	meaning
1 or 3	UTM coordinate is part of a line
2	UTM coordinate indicates the spatial location of a discrete data item (point location)
4	UTM coordinate begins a line segment
5	UTM coordinate ends a line segment
6	UTM coordinate denotes position of text string for display
7	UTM coordinate begins a closed polygon
8	UTM coordinate ends a closed polygon

- a two digit number denoting the UTM zone number of the accompanying UTM coordinate
- a six digit number for the easting
- a six digit number for the northing

The index files consist of a series of records, each relating a unique sequence number to the position in the data file of the associated entity coordinates. The index file contains the following items:

- a nine digit sequence number which is unique to each entity;
  a space
- a six digit number denoting the data file record number for the start of the entity;
  a space
- a one digit number denoting the field number within the above record (of eight fields) for the start of the entity;
  a space
- a six digit number denoting the data file record number for the end of the entity;
  a space
- a one digit number denoting the field number within the above record for the end of the entity.

The text file contains the text strings corresponding to the text entities. The index text pointer is linked to the text string through its unique number. The text file contains the following information:

- a one digit number indicating pen colour (for plotting);
  a blank
- a nine digit sequence number that is unique to the entity;
  a space
- a one digit number used as a text justification flag;
  a space
- a 7 digit floating point number denoting the plotted text size (in cm);
  a space
- a five digit floating point number indicating text rotation in degrees;
  a space
- ASCII text up to 80 columns

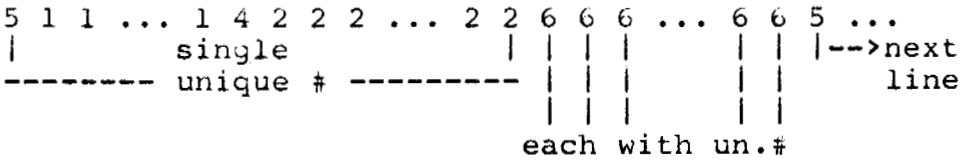
Description of the Beaufort track database

The DIAND format files that we have constructed for the Beaufort track information database are structured as follows:

The filename for each file type consists of a six letter prefix referring to the name of the source map (or study), and a two letter suffix for the SUPER-TECH site ID.

The file extension refers to:

.LCF **basic line data** file structured as follows:
(a coordinate pair is indicated here by its prefix only)



The line data (5, 1's & 4) plus associated symbol locations (repeat of digitized line coordinates prefixed with 2) constitute an entity with a unique #. There will be many more 1's than there are 2's if the data are interpolated because there is no symbol assigned to interpolated points. Interpolation can clearly have the largest impact on the size of the database.

Following the 2's is a sequence of coordinate pairs prefixed with 6. These are text locations, one at the beginning of the line for the line name, one for the fix label at each digitized fix, and one at the end of the line for the line name. The coordinates for these text locations are again a repeat of the digitized fix coordinates.

This arrangement is repeated for each of the lines in the database.

.LIF **index** file for the basic data entities in the .LCF file. Basic data is defined as the line data (4, 1's and 5), the symbol locations (2's), the start line name, fix labels and the end line name (all 6's).

Each line entity has a unique number sequenced 100, 200, 300 etc. The text items (line names and fixes) are sequenced by one, starting at 101, 201, 301 etc.

Initially, we had designed the database so that fix labels between the start and end fixes were referenced in a separate index file. The intent was to permit access to a subset of the database without a large amount of text. If all of the text was required, then the intermediate text data referred to in the intermediate index file could have been called up as well. This arrangement was not compatible with the DIAND structure and had to be scrapped.

.TXT **text** records associated with all of the text entities.

Usage

It was attempted to build maximal flexibility into the Beaufort track database. One of the main concerns was to incorporate as much useable information into the database as reasonable, while maintaining a tight structure and manageable size. In particular, as much labelling as possible was included so that a convenient reference to the location of specific fix ranges would be available. This would avoid the need to search through endless rolls of data to determine and arrive at the specific recorded data over an area of interest.

A database has been constructed that can be loaded and manipulated on the DIAND geographic data management system. The data consists of tracks with associated labels. Usage depends on the capabilities of the database management

system. However, basic operations will involve queries of the graphical database for:

- the data coverage in a given area
- the location of a specific line or group of lines
- shotpoint range in a given area for a particular line
- line-km shot within a particular window or along specific lines
- the names of lines in or passing through a given window.

CONCLUSIONS and RECOMMENDATIONS

The following summarizes the information provided:

1. All of the government data up to and including surveys run in 1986 (disk 1). In total the databases consist of 355 lines covering 14104 line-km.
2. All of the regional lines for ESSO, GULF and DOME (disk 2 sub/dir REGIONAL).
   NOTE: The regional data for ESSO 1977-1982 was provided on a supplementary disk (disk 3).
   The databases consist of 581 lines covering 12036 line-km.
3. All site survey data from GULF and DOME for the priority areas designated by the scientific authority - that is, the Isserk and Erksak areas - (disk 2). These consist of 9 out 19 studies for GULF (352 lines, 1529 line-km), and 12 out 40 studies for DOME (213 lines, 1234 line-km). None of the approximately 35 ESSO site survey sheets was digitized because they arrived after the project funds were expended.
4. All data digitized (consisting in total of 1500 lines spanning 29000 line-km) was plotted and compared with the source. Selected check plots are provided to demonstrate the quality control procedures implemented.
5. A listing of the digitized databases, correlated with the catalogue compiled by McElhanney (1988), is provided in Appendix II. Some of the maps (or data sources) used by Earth & Ocean Research do not appear to have direct equivalents in the catalogue. These EOR databases are listed below with source information shown in brackets:

GULF_REGIONAL_1982 (see COMPILATION item 3)
GULF: SOUTH_UKALERK (provided by Gulf)
ESSO_REGIONAL_77-82 (see COMPILATION item 3)
DOME80_82 (see COMPILATION item 3)
DOME: TINGMIARK_K91 (provided by Dome)
GOVT_REGIONAL_70-80 (O'Connor, 1984)
GOVT_REGIONAL_81-82 (O'Connor, 1984)
NAHIDIK_1983 (Meagher, 1987)
NAHIDIK_1985 (Meagher, 1987)

6. An additional floppy disk (disk 4) is provided which contains the digitized track inventory databases (Appendix I), namely ESSOTRK.DBF
DOMETRK.DBF
GULFTRK.DBF
GOVT1TRK.DBF
GOVT2TRK.DBF ,
as well as the McElhanney/EOR correlated database (Appendix II), MAPLIST.DBF ,
as well as the ASCII file version of this report, 87-28.REP .

The project objective of digitizing <u>all</u> tracks in the Beaufort was not achieved because the scale of the task was too large for the budget time frame.

A tactical error was made when the level of detail to be assigned to site surveys was not clearly defined. An attempt was made to digitize every track in each site survey, whereas for the purpose of the end use of the database, an outline of the survey area would have been sufficient.

It is proposed that for a small additional investment, coverage for ESSO (approx. 35 sheets) and the rest of DOME (28 sheets) and GULF (10 sheets) could be achieved using this approach.

The level of effort involved in building a digital database, coupled with the difficulty associated with gauging the quality of digital information, justifies ensuring that the highest quality source materials be used. Given the difficulty encountered to achieve good accuracy using distorted copies of source maps, it is recommended that for future projects of this kind, stable source maps be provided where possible.

While the intent of this project was to provide a data inventory, the potential is available to construct a navigation database from high quality analogue or digital source information. A navigation database could be used as an index to profile or other cross-sectional information stored on the system. Thus a link between geographic location and "fix" can be used to access profile data and, given the graphics capability, permit this important third dimension to be displayed on screen, edited and plotted. The SUPER-TECH routines used to create the track inventory for this project were designed foremost to construct a navigation database. It is recommended that for future projects of this type, consideration be given to broadening the scope to include this functionality.

Text display usually imposes a large overhead on the generation and plotting time of maps. It is likely that much of the time, general indications of coverage will be the main use of the Beaufort track database. In this situation, there is no need to display all of the text. As discussed above this was originally dealt with by separating the intermediate fix labels from the start and end fix and line labels. Although this approach could not be adopted on the DIAND system, it is recommended that procedures be set up on the DIAND system to accomplish this.

REFERENCES

McElhanney Geosurveys, Beaufort Sea granular resource catalogue, prepared for Dept. Indian and Northern Affairs, 1988.

Meagher, L., Beaufort Sea acoustic database compilation, prepared for the Geological Survey of Canada, 1987.

O'Connor, M.J., Compilation of GSC acoustic profiles 1970 to 1982, DSS contract no.10SC.23420-3-M833 report, prepared for the Geological Survey of Canada, 1984.

O'Connor, M.J. and R.D. King, Reflection seismic surveys: government data base 1970-1980. DSS contact no.08SC.23420-0-M531 report, prepared for the Geological Survey of Canada, 1981.

APPENDIX I

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
** ESSO_REGIONAL_77-82									
80I10836.23	995	0	1131	0	70.379639	-129.348480	70.836922	-129.398636	51
80I10836.24	999	0	1131	0	70.390488	-129.480118	70.833946	-129.544205	50
80I10836.25	995	0	1044	0	70.667206	-129.652847	70.831711	-129.692490	18
80I10836.26	995	0	1044	0	70.663383	-129.786621	70.826767	-129.821457	18
80I10836.27	995	0	1055	0	70.374001	-129.607193	70.575378	-129.639236	23
80I10836.28	995	0	1051	0	70.374001	-129.738846	70.561081	-129.773849	21
80I10836.29	995	0	1051	0	70.372467	-129.881226	70.560555	-129.906372	21
80I10836.30	995	0	1051	0	70.370552	-130.007767	70.558105	-130.037003	21
80I10836.31	995	0	1052	0	70.366470	-130.142242	70.557991	-130.188904	22
82E10841.12	1001	0	1018	0	70.761551	-129.143585	70.890877	-129.462875	19
82E10841.17	1001	0	1017	0	70.798584	-129.061554	70.908592	-129.336014	16
82E10846.80	1001	0	1013	0	70.837379	-129.826981	70.926651	-130.011932	12
82E10846.82	1001	0	1019	0	70.969368	-129.810837	70.879234	-130.215576	18
82E10846.83	1001	0	1019	0	70.840256	-130.124634	70.930664	-129.727783	18
82E10846.84	1001	0	1017	0	70.906967	-129.716995	70.829987	-130.070068	16
82E10846.85	1001	0	1012	0	70.899025	-130.127014	70.822884	-129.963913	10
82E10846.86	1001	0	1011	0	70.949493	-129.881821	70.874077	-129.742950	10
82E10846.87	1001	0	1012	0	70.822876	-129.977310	70.877106	-129.731415	11
82E10847.11	1001	0	1020	0	70.903923	-129.259293	70.743416	-129.364471	18
82E10847.13	1001	0	1019	0	70.874443	-129.551132	70.747856	-129.217239	19
82E10847.14	1001	0	1019	0	70.901665	-129.399597	70.775360	-129.113724	18
82E10847.15	1000	0	99001	0	70.763008	-129.488617	70.905350	-129.404739	16
82E10847.16	1001	0	1018	0	70.745735	-129.217484	70.913445	-129.113434	19
82E10847.18	1001	0	1016	0	70.743408	-129.273346	70.858391	-129.552643	16
82E10847.19	1001	0	1012	0	70.822083	-129.548248	70.741905	-129.377502	11
82E10847.20	1001	0	1011	0	70.904556	-129.227661	70.826363	-129.066635	11
DHR80046	101	0	2252	0	69.766571	-136.121445	69.905884	-136.346207	18
DHR80047	101	0	1500	0	69.782616	-136.301651	69.782463	-136.037125	10
DHR80048	101	0	1374	0	69.799446	-136.069702	69.799133	-136.347809	11
DHR80049	101	0	1380	0	69.815796	-136.335175	69.816025	-136.059814	11
DHR80050	101	0	1070	0	69.815735	-136.171936	69.770393	-135.991867	9
DHR80051	101	0	2251	0	69.742187	-135.906204	69.735085	-135.525635	18
DHR80052	101	0	99004	0	69.670929	-136.510727	69.835381	-135.193741	55
DHR80053	101	0	7442	0	69.755516	-135.671875	69.663383	-136.496384	61
DHR80054	101	0	4951	0	69.765274	-135.352280	69.698608	-136.344925	40
DHR80055	101	0	650	0	69.766769	-135.883698	69.726570	-135.884903	4
DHR80059	101	0	650	0	69.727539	-135.907654	69.767258	-135.912415	4
DHR80063	101	0	650	0	69.767067	-135.937988	69.726425	-135.935791	5
DHR80067	101	0	650	0	69.717514	-135.956619	69.758545	-135.962173	5
DHR80530	101	0	99001	0	69.698669	-136.344925	70.000702	-136.332855	34
81E10838.19	1910	0	2106	0	69.941902	-134.447891	69.852829	-134.371872	10
81E10843.96	1000	0	1037	0	69.812874	-135.862778	69.749382	-135.813065	7
81E10843.97	1000	0	1044	0	69.749161	-135.756180	69.821762	-135.843628	9
81E10843.98	1000	0	1044	0	69.749283	-135.755524	69.822044	-135.844131	9
81E10843.99	1000	0	1074	0	69.829933	-135.732925	69.713875	-135.547562	15
81E10844.40	1000	0	1032	0	69.830727	-135.401474	69.776695	-135.353088	6
81E10844.01	1000	0	1013	0	69.841682	-135.137390	69.819031	-135.113525	3

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
81E10844.02	1000	0	1037	0	69.862732	-134.998245	69.795250	-134.965805	8
81E10844.03	1000	0	1041	0	69.866234	-134.973160	69.795486	-134.921188	8
81E10844.04	1000	0	1035	0	69.865364	-134.947311	69.804558	-134.900986	7
81E10844.05	1000	0	1177	0	69.724701	-136.319916	69.842361	-135.472015	35
81E10844.06	1000	0	1117	0	69.848793	-134.869324	69.786736	-135.456451	24
79I10830.75	1000	0	1400	0	70.414742	-137.353928	70.449310	-137.883682	20
79I10830.76	1000	0	1405	0	70.413971	-137.836731	70.394379	-137.300247	20
79I10830.77	1000	0	1300	0	70.398056	-137.771683	70.371353	-137.375778	15
79I10830.78	1000	0	1300	0	70.362823	-137.721634	70.347656	-137.327927	15
79I10830.79	1000	0	1160	0	70.413940	-137.832123	70.482124	-137.809891	8
79I10830.80	1000	0	1240	0	70.482506	-137.731445	70.375847	-137.771408	12
79I10830.81	1000	0	1310	0	70.480621	-137.676041	70.342903	-137.722534	15
79I10830.82	1000	0	1320	0	70.472260	-137.524033	70.343330	-137.676956	16
79I10830.83	1000	0	1300	0	70.475586	-137.603409	70.341919	-137.587250	15
79I10830.84	1005	0	1305	0	70.356972	-137.519653	70.489372	-137.451035	15
79I10830.85	1000	0	1250	0	70.375656	-137.437057	70.485786	-137.378128	12
79I10830.86	1000	0	1190	0	70.395905	-137.358109	70.479256	-137.304504	10
79I10830.87	1000	0	1360	0	70.460587	-137.311310	70.485413	-137.795486	18
79I10830.88	1000	0	1410	0	70.444283	-137.335770	70.469437	-137.877289	20
77I10828.82	1	0	59	0	69.861130	-132.854797	69.844200	-132.903839	3
77I10828.83	1	0	205	0	69.845413	-133.024139	69.821281	-132.822006	8
77I10828.84	1	0	158	0	69.748299	-133.267654	69.749298	-133.455078	7
77I10828.89	1	0	121	0	69.845863	-132.900513	69.808578	-133.011795	6
82E10847.73	1001	0	1076	0	69.984932	-133.298965	69.980858	-132.905563	15
82E10847.74	1001	0	1051	0	69.963348	-132.907394	70.052773	-132.893860	10
82E10847.75	1001	0	1106	0	70.075836	-132.927444	69.940498	-133.302948	21
77I10828.27	1	0	55	0	70.440437	-132.613510	70.462585	-132.312515	12
77I10828.28	1	0	61	0	70.428497	-132.593781	70.465912	-132.141373	17
77I10828.29	1	0	87	0	70.450859	-132.180557	70.409546	-132.735016	21
77I10828.30	1	0	86	0	70.441711	-132.182846	70.403900	-132.684906	19
77I10828.31	1	0	84	0	70.431335	-132.176208	70.390160	-132.713623	21
77I10828.32	1	0	125	0	70.384789	-132.663559	70.426216	-132.102097	22
77I10828.33	1	0	111	0	70.378311	-132.637054	70.420914	-132.029572	23
81E10828.34	1	0	35	0	70.445541	-132.597839	70.371040	-132.548889	9
77I10828.35	1	0	48	0	70.477722	-132.418030	70.384872	-132.360291	11
77I10828.36	99001	0	54	0	70.453865	-132.245712	70.347198	-132.157837	12
77I10828.37	1	0	59	0	70.199280	-133.649170	70.290421	-133.444305	13
77I10828.38	1	0	111	0	70.210289	-133.811844	70.445145	-133.809357	26
77I10828.39	1	0	62	0	70.273582	-133.471207	70.263580	-133.883591	16
77I10828.40	1	0	74	0	70.262581	-133.444366	70.253159	-133.873611	16
77I10828.41	1	0	68	0	70.251312	-133.429718	70.243759	-133.871918	17
77I10828.42	1	0	76	0	70.234306	-133.845062	70.243736	-133.402679	17
77I10828.43	1	0	88	0	70.223366	-133.850296	70.233711	-133.402557	17
77I10828.44	1	0	64	0	70.351006	-134.347046	70.469101	-134.247681	14
77I10828.45	1	0	62	0	70.433266	-134.037918	70.350365	-134.391190	16
77I10828.46	1	0	77	0	70.446571	-134.389923	70.422211	-134.040207	13
77I10828.47	1	0	93	0	70.341064	-134.175674	70.491974	-134.058258	17
77I10828.48	1	0	69	0	70.347260	-134.236053	70.462364	-134.139954	13

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
77I10828.49	1	0	67	0	70.457191	-134.214493	70.345695	-134.292755	13
77I10828.50	1	0	229	0	70.451973	-135.113907	70.385796	-134.153717	37
77I10828.51	1	0	203	0	70.439789	-135.127670	70.343468	-134.106781	41
77I10828.52	1	0	157	0	70.352097	-134.016678	70.431763	-135.192673	45
77I10828.53	1	0	37	0	70.453995	-134.932526	70.378777	-134.975891	9
77I10828.85	1	0	79	0	70.421455	-135.182800	70.397522	-134.734283	17
77I10828.86	1	0	75	0	70.380592	-134.738495	70.410736	-135.229980	19
77I10828.87	1	0	68	0	70.409592	-133.749664	70.451683	-134.114716	15
78E10838.19	1910	0	2000	0	70.407234	-134.316696	70.229599	-134.118439	22
78E10838.20	1502	0	1608	0	70.313698	-134.088120	70.382507	-133.768860	30
78E10838.21	1800	0	1908	0	70.384888	-133.623901	70.403244	-134.308090	27
78E10838.22	99001	0	1750	0	70.380478	-134.214035	70.373695	-133.604813	23
81E10842.57	99001	0	1000	0	70.500404	-135.277603	70.294655	-135.264114	23
81I10842.76	1000	0	1033	0	70.434708	-134.196548	70.430717	-135.088562	33
81E10843.45	1000	0	1030	0	70.295898	-132.741791	70.564331	-132.717957	30
81E10843.46	1000	0	1030	0	70.565277	-132.859543	70.303635	-132.868484	29
81E10843.47	1000	0	1030	0	70.298500	-132.995636	70.565895	-132.990158	30
81E10843.48	1000	0	1030	0	70.566887	-133.123352	70.298546	-133.133728	30
81E10843.49	1000	0	1030	0	70.299370	-133.265015	70.567558	-133.259811	30
81E10843.51	1000	0	1030	0	70.300240	-133.534241	70.567848	-133.524887	30
81E10843.52	1000	0	1030	0	70.567932	-133.658615	70.300316	-133.666229	30
81E10843.53	1000	0	1030	0	70.568497	-133.796982	70.300468	-133.795349	30
81E10843.54	1000	0	1030	0	70.300011	-133.931747	70.568672	-133.930725	30
81E10843.55	1000	0	1030	0	70.568634	-134.060532	70.300201	-134.066284	30
81E10843.59	1000	0	1030	0	70.567383	-133.392532	70.299080	-133.399734	30
81E10843.83	99001	0	1065	0	70.500717	-134.194534	70.300346	-134.197601	22
81E10843.90	1000	0	1018	0	70.348991	-132.640854	70.504585	-132.633865	18
81E10843.91	1000	0	99001	0	70.504272	-132.579788	70.345337	-132.536957	18
81E10843.92	1	0	1017	0	70.348648	-132.566803	70.478745	-132.374191	16
81E10843.93	1000	0	1026	0	70.479446	-132.341309	70.344276	-132.541275	17
81E10893.94	1014	0	1030	0	70.364021	-132.347702	70.437653	-132.685181	15
81E10893.95	1000	0	1021	0	70.451027	-132.679794	70.378937	-132.342514	15
77I10828.54	1	0	110	0	70.810570	-133.734558	70.642250	-134.050629	22
77I10828.55	1	0	126	0	70.561539	-133.773499	70.844490	-133.742554	32
77I10828.56	1	0	151	0	70.661835	-134.233368	70.716034	-133.547180	26
77I10828.57	1	0	111	0	70.656563	-134.229782	70.661057	-133.711548	19
77I10828.58	1	0	112	0	70.647118	-134.261169	70.650230	-133.698456	21
77I10828.59	1	0	103	0	70.636330	-134.251236	70.638664	-133.688156	21
77I10828.60	1	0	100	0	70.624802	-134.250092	70.624817	-133.745209	19
77I10828.61	1	0	90	0	70.617226	-133.722046	70.604240	-134.317902	22
77I10828.62	1	0	90	0	70.604652	-133.718826	70.601997	-134.282166	21
77I10828.63	1	0	90	0	70.595436	-133.740234	70.592201	-134.320496	22
77I10828.64	1	0	90	0	70.584122	-133.752594	70.582161	-134.304199	21
77I10828.65	1	0	134	0	70.571754	-133.739929	70.573471	-134.535507	30
77I10828.88	1	0	99001	0	70.647377	-134.067093	70.499962	-134.070328	17
78E10838.23	99001	0	2348	0	70.662941	-133.743195	70.861679	-133.757523	22
78E10838.24	32	0	1	0	70.750359	-133.826065	70.848831	-133.793915	11
78E10838.25	40	0	116	0	70.751259	-133.841980	70.887939	-133.900711	18

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
78E10838.26	122	0	213	0	70.895454	-133.926346	70.785431	-133.437744	36
78E10838.27	2012	0	2116	0	70.771759	-133.283432	70.772583	-134.083878	30
78E10838.28	2122	0	99001	0	70.768211	-134.118927	70.758781	-133.716049	15
78E10838.29	2220	0	2322	0	70.779015	-133.576736	70.812645	-134.161133	27
78E10838.30	44	0	236	0	70.840523	-134.122955	70.889305	-133.685226	50
78E10838.31	238	0	338	0	70.882271	-133.690353	70.652435	-133.658585	27
78E10838.32	340	0	504	0	70.647232	-133.648087	70.912132	-133.595810	34
78E10838.33	2230	0	2300	0	70.781029	-133.620346	70.901154	-133.619247	13
78E10838.34	2302	0	99006	0	70.905708	-133.610886	70.752441	-133.335373	24
78E10838.35	16	0	50	0	70.755615	-133.361008	70.753761	-133.758453	15
78E10838.36	1236	0	1322	0	70.823395	-133.359222	70.821304	-133.832718	17
78E10838.37	1328	0	1450	0	70.844398	-133.827087	70.689964	-133.406525	36
78E10833.83	145200	0	1554	0	70.690605	-133.419952	70.711960	-133.900146	21
78E10838.39	99001	0	1646	0	70.721077	-133.948517	70.803284	-133.594025	19
81E10842.55	99001	0	1065	0	70.499565	-135.543213	70.875114	-135.575333	42
81E10842.56	1000	0	99001	0	70.876213	-135.446487	70.499596	-135.408813	42
81E10842.58	1000	0	99004	0	70.878563	-135.157730	70.499962	-135.133560	42
81E10842.59	1000	0	1050	0	70.431396	-134.997833	70.879860	-135.020828	50
78E10842.60	1000	0	1050	0	70.879822	-134.892975	70.431854	-134.864273	50
81E10842.61	1000	0	1050	0	70.430840	-134.730484	70.881104	-134.751144	50
81E10842.62	1000	0	1051	0	70.880943	-134.618027	70.432213	-134.601517	50
81E10842.63	1000	0	1050	0	70.432465	-134.473373	70.881439	-134.480377	50
81E10842.64	1000	0	1050	0	70.879539	-134.342392	70.433655	-134.329910	50
81E10842.65	1000	0	99002	0	70.881149	-134.207352	70.523331	-134.195465	40
81E10842.68	1000	0	1050	0	70.796799	-134.203094	70.789993	-135.568375	50
81E10842.69	1000	0	1050	0	70.744675	-134.202606	70.740990	-135.563828	50
81E10842.70	1000	0	1050	0	70.703445	-134.201874	70.695999	-135.559723	50
81E10842.71	1000	0	1050	0	70.658432	-134.333145	70.651115	-135.556000	45
81E10842.72	1000	0	1050	0	70.612495	-134.378571	70.605431	-135.551880	44
81E10842.73	1000	0	1050	0	70.560600	-135.549042	70.567833	-134.206116	50
81E10842.74	1000	0	1051	0	70.523560	-134.198380	70.515450	-135.543289	50
81E10843.57	1000	0	1011	0	70.568451	-133.550980	70.658157	-133.543289	10
81E10843.60	1000	0	1010	0	70.656769	-133.748550	70.568840	-133.743271	10
77I10843.61	1000	0	1010	0	70.569000	-133.811722	70.654266	-133.810654	10
81E10843.62	1000	0	1036	0	70.654640	-133.512756	70.657295	-134.482697	36
81E10843.63	1000	0	1036	0	70.639740	-134.486206	70.639519	-133.516144	36
81E10843.64	1000	0	1036	0	70.621971	-133.517212	70.622086	-134.483505	36
81E10843.65	1000	0	1036	0	70.604538	-134.480972	70.604301	-133.515015	36
81E10843.66	1000	0	1036	0	70.586182	-133.516449	70.585670	-134.480515	36
81E10843.67	1000	0	1036	0	70.569267	-133.516800	70.567612	-134.482452	36
81E10843.70	99001	0	99002	0	70.658920	-134.244919	70.569351	-134.241959	10
81E10843.71	99001	0	99002	0	70.658180	-134.177734	70.568954	-134.174026	10
81E10843.85	1000	0	1010	0	70.577179	-134.374908	70.576675	-134.105652	10
81E10843.76	1000	0	1010	0	70.589966	-134.378357	70.590553	-134.108749	10
81E10843.77	1000	0	1010	0	70.595596	-134.104736	70.594490	-134.377686	10
81E10843.78	1000	0	1010	0	70.612556	-134.377197	70.612976	-134.157822	8
81E10843.79	1000	0	1010	0	70.631439	-134.108261	70.630104	-134.376709	10
81E10843.80	1000	0	1010	0	70.648857	-134.377075	70.649269	-134.107025	10

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
78E10843.81	99001	0	99004	0	70.658287	-134.157043	70.515152	-134.157303	16
81E10843.86	99001	0	99002	0	70.656654	-134.326950	70.568748	-134.325500	10
81E10843.87	99001	0	99002	0	70.657333	-134.300064	70.568741	-134.294617	10
81E10845.38	1000	0	1010	0	70.657860	-133.609299	70.567963	-133.613098	10
81E10845.39	1000	0	1010	0	70.569176	-133.674988	70.658180	-133.676651	10
82E10847.40	99001	0	99003	0	70.507744	-134.205170	70.659065	-134.208054	17
82E10847.41	99001	0	99003	0	70.511200	-134.231140	70.658630	-134.241135	16
82E10847.42	99001	0	99003	0	70.510635	-134.169052	70.657661	-134.177048	16
82E10847.43	99001	0	99002	0	70.514900	-134.138901	70.568626	-134.137314	6
82E10847.44	9901	0	9903	0	70.559860	-134.311096	70.557220	-134.301682	15
82E10847.45	99001	0	99002	0	70.550682	-134.307343	70.550835	-134.174515	5
82E10847.46	99001	0	99004	0	70.540588	-134.311829	70.540764	-134.310455	16
82E10847.47	99001	0	99003	0	70.532562	-134.304825	70.532463	-134.106354	7
82E10847.48	99001	0	99002	0	70.522926	-134.288574	70.522812	-134.198044	3
82E10847.49	99001	0	99002	0	70.509735	-134.189072	70.658592	-134.191681	17
82E10847.50	99001	0	99002	0	70.508614	-134.223450	70.657585	-134.225815	17
82E10847.51	99001	0	99002	0	70.512131	-134.254059	70.657951	-134.261642	16
82E10847.52	99001	0	99002	0	70.514603	-134.271500	70.657501	-134.274567	16
82E10847.53	99001	0	99002	0	70.514153	-134.135834	70.513802	-134.270813	5
82E10847.54	99001	0	99003	0	70.514694	-134.157211	70.657890	-134.176697	16
82E10847.55	99001	0	99002	0	70.523369	-134.120331	70.568604	-134.117249	5
82E10847.56	99001	0	99002	0	70.532921	-134.105835	70.658333	-134.109329	14
82E10847.57	99001	0	99002	0	70.522980	-134.287720	70.657677	-134.291107	15
82E10847.58	99001	0	99002	0	70.532219	-134.305679	70.658310	-134.310226	14
** Subtotal **									4502
** ESSO_REGIONAL_1983									
83J10850.54	99001	0	2523	0	70.808580	-132.331560	70.807900	-132.640140	11
83J10850.56	99001	0	1798	0	70.820340	-132.329560	70.820010	-132.634020	11
83J10850.57	99001	0	2524	0	70.826170	-132.330720	70.824720	-132.632630	11
83J10850.58	99001	0	3229	0	70.831860	-132.322370	70.830670	-132.637700	12
83J10850.59	99001	0	1797	0	70.836160	-132.331620	70.835820	-132.640660	11
83J10850.60	99001	0	3965	0	70.843030	-132.331770	70.841990	-132.644850	11
83J10850.62	99001	0	1074	0	70.853870	-132.329240	70.851880	-132.638470	11
83J10850.63	362	0	704	0	70.786040	-132.551000	70.881650	-132.553090	11
83J10850.64	3966	0	4328	0	70.882270	-132.520340	70.781620	-132.518100	11
83J10850.65	4695	0	5056	0	70.881430	-132.500730	70.780660	-132.500120	11
83J10850.66	99001	0	1073	0	70.881600	-132.483750	70.778830	-132.483520	11
83J10850.67	99001	0	4326	0	70.883230	-132.468540	70.780080	-132.464750	12
83J10850.68	5067	0	5418	0	70.780640	-132.449770	70.881580	-132.450640	11
83J10850.69	1	0	361	0	70.881690	-132.413380	70.780960	-132.415280	11
83J10850.70	6033	0	6493	0	70.876460	-132.622570	70.785620	-132.345550	14
83J10850.71	5419	0	5877	0	70.877030	-132.347060	70.785280	-132.619810	14
83J10850.72	362	0	722	0	70.747400	-131.323930	70.749580	-131.607760	10
83J10850.74	99001	0	1251	0	70.757760	-131.319350	70.759740	-131.603930	10
83J10850.75	99001	0	99002	0	70.764040	-131.315230	70.765770	-131.604450	11
83J10850.76	99001	0	2695	0	70.769550	-131.315490	70.771280	-131.602710	11

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
83J10850.77	99001	0	6305	0	70.776120	-131.323350	70.777190	-131.600460	10
83J10850.78	99001	0	1974	0	70.780740	-131.309970	70.783040	-131.617890	11
83J10850.79	99001	0	3417	0	70.787110	-131.314560	70.788080	-131.615690	11
83J10850.80	2686	0	3056	0	70.793880	-131.618740	70.792980	-131.316530	11
83J10850.81	5584	0	5944	0	70.818670	-131.390200	70.719900	-131.397610	11
83J10850.82	4862	0	5222	0	70.819730	-131.425290	70.720060	-131.431320	11
83J10850.83	5223	0	5583	0	70.723750	-131.451170	70.813220	-131.441740	10
83J10850.84	4501	0	4861	0	70.726210	-131.465850	70.817380	-131.459110	10
83J10850.85	4140	0	4500	0	70.817330	-131.476560	70.727140	-131.482730	10
83J10850.86	3418	0	3778	0	70.812750	-131.492690	70.721870	-131.499620	10
83J10850.87	3779	0	4139	0	70.721030	-131.533770	70.819960	-131.528060	11
83J10850.88	99001	0	6747	0	70.726940	-131.336690	70.813670	-131.586870	13
83J10850.89	6306	0	6746	0	70.728630	-131.593020	70.814080	-131.324460	14
83J10851.18	99001	0	1190	0	70.582150	-131.107410	70.583340	-131.397230	11
83J10851.19	99001	0	6164	0	70.588260	-131.118030	70.589590	-131.370530	9
83J10851.20	99001	0	1191	0	70.594470	-131.085940	70.595600	-131.369610	11
83J10851.21	4440	0	5545	0	70.602550	-131.387850	70.599920	-131.067320	12
83J10851.23	6268	0	6628	0	70.613190	-131.108750	70.614720	-131.375600	10
83J10851.24	5907	0	99001	0	70.619610	-131.391830	70.617710	-131.115970	10
83J10851.25	6996	0	7358	0	70.624420	-131.124540	70.627010	-131.386080	10
83J10851.26	6635	0	6995	0	70.631870	-131.388030	70.629650	-131.108030	10
83J10851.27	1913	0	2273	0	70.655660	-131.139950	70.555890	-131.145770	11
83J10851.28	1552	0	1912	0	70.558040	-131.170580	70.648510	-131.168370	10
83J10851.29	2095	0	2685	0	70.555790	-131.205690	70.653410	-131.201140	11
83J10851.30	2274	0	2634	0	70.558880	-131.224490	70.652370	-131.216550	10
83J10851.31	3357	0	3722	0	70.651960	-131.231110	70.559330	-131.233020	10
83J10851.32	4079	0	4439	0	70.652670	-131.251860	70.558450	-131.256210	11
83J10851.33	2998	0	3350	0	70.557970	-131.273770	70.651400	-131.266590	10
83J10851.34	3718	0	4078	0	70.561260	-131.307420	70.657260	-131.299230	11
83J10851.36	1	0	461	0	70.649220	-131.114750	70.553870	-131.380480	14
83J10851.57	1	0	1121	0	69.815260	-135.506790	69.771680	-135.832320	13
83J10851.58	1129	0	1464	0	69.771100	-135.836400	69.734660	-135.837050	4
83J10851.59	1465	0	99001	0	69.732840	-135.835830	69.811260	-135.325810	22
83J10851.95	1	0	3840	0	69.811430	-135.325470	70.018630	-134.235460	48
83J10851.96	3843	0	4083	0	70.003030	-134.281690	70.029650	-134.280140	3
83J10831.73	9235	0	9680	0	70.857670	-136.720930	70.738660	-136.711410	13
83J10850.90	99001	0	99002	0	70.872020	-136.728360	70.872470	-137.057790	12
83J10850.91	99001	0	99002	0	70.878390	-136.726430	70.878110	-137.036730	11
83J10850.92	99001	0	99002	0	70.883990	-136.725780	70.884380	-137.034700	11
83J10850.93	99001	0	99002	0	70.890040	-136.730060	70.890500	-137.023610	11
83J10850.94	99001	0	99002	0	70.896290	-136.727920	70.896510	-137.037020	11
83J10850.95	99001	0	99002	0	70.902160	-136.729050	70.903280	-137.035050	11
83J10850.96	99001	0	99002	0	70.908640	-136.755400	70.909280	-137.034060	10
83J10850.97	99001	0	99002	0	70.914540	-136.725980	70.915340	-137.034740	11
83J10850.98	99001	0	99002	0	70.920740	-136.728030	70.921320	-137.035630	11
83J10850.99	99001	0	99002	0	70.946470	-136.810060	70.845450	-136.811600	11
83J10851.00	99001	0	99002	0	70.946710	-136.843920	70.846230	-136.844150	11
83J10851.01	99001	0	99002	0	70.947480	-136.860930	70.845900	-136.862140	11

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
83J10851.02	99001	0	99002	0	70.947390	-136.878710	70.844770	-136.876560	11
83J10851.03	99001	0	99002	0	70.947520	-136.896680	70.846200	-136.899660	11
83J10851.04	99001	0	99002	0	70.947190	-136.914780	70.845510	-136.914990	11
83J10851.05	99001	0	99002	0	70.946970	-136.947710	70.845690	-136.947980	11
83J10851.08	1855	0	2357	0	70.765460	-136.706960	70.779140	-137.133580	16
83J10851.09	99001	0	4746	0	70.796220	-136.720660	70.809590	-137.151000	16
83J10851.10	2539	0	3039	0	70.825610	-136.690200	70.839030	-137.108510	15
83J10851.11	3040	0	3545	0	70.871540	-137.146420	70.851030	-136.717970	16
83J10851.12	1352	0	1854	0	70.861370	-136.781300	70.720290	-136.754200	16
83J10851.13	692	0	1351	0	70.679300	-136.818970	70.844000	-136.840380	18
83J10851.14	1	0	691	0	70.806530	-136.904660	70.677210	-136.893340	14
83J10851.15	5761	0	6421	0	70.694450	-136.964450	70.880600	-136.969670	21
83J10851.16	5261	0	5758	0	70.868810	-137.036220	70.742000	-137.031460	14
83J10851.17	4747	0	5260	0	70.744280	-137.096830	70.887520	-137.097260	16
83J10851.38	2849	0	3209	0	70.765210	-137.685960	70.862340	-137.691100	11
83J10851.39	99001	0	1766	0	70.767460	-137.705030	70.866610	-137.712390	11
83J10851.40	8387	0	8747	0	70.860050	-137.728560	70.765850	-137.722720	11
83J10851.41	2488	0	2848	0	70.868130	-137.675290	70.765600	-137.668560	11
83J10851.42	7992	0	8352	0	70.761440	-137.775480	70.865740	-137.780640	12
83J10851.43	3210	0	3570	0	70.867060	-137.638610	70.766030	-137.634580	11
83J10851.44	99001	0	6145	0	70.817860	-137.553620	70.815580	-137.865740	11
83J10851.45	99001	0	4674	0	70.823880	-137.552930	70.822420	-137.866680	12
83J10851.46	99001	0	5391	0	70.811920	-137.553280	70.810390	-137.865280	11
83J10851.47	99001	0	7630	0	70.829880	-137.555710	70.828040	-137.868620	11
83J10851.48	99001	0	4673	0	70.805720	-137.554990	70.803880	-137.859210	11
83J10851.49	6146	0	6506	0	70.833500	-137.867220	70.835270	-137.557510	11
83J10851.50	99001	0	3951	0	70.800340	-137.558560	70.797420	-137.869930	11
83J10851.51	7631	0	7991	0	70.840030	-137.866200	70.841560	-137.557720	11
83J10851.52	99001	0	364	0	70.793810	-137.556210	70.792010	-137.860950	11
83J10851.53	1	0	361	0	70.861340	-137.581310	70.788820	-137.795610	11
83J10851.54	723	0	1043	0	70.773910	-137.575070	70.838940	-137.770840	10
83J10851.65	3553	0	4225	0	70.870670	-136.569290	70.680780	-136.560610	21
83J10851.66	8437	0	8952	0	70.752890	-137.138750	70.739430	-136.705660	16
83J10851.67	7921	0	8436	0	70.704280	-136.711610	70.720730	-137.138020	16
83J10851.68	6622	0	7138	0	70.692670	-137.135330	70.679860	-136.701900	16
83J10851.69	8953	0	9234	0	70.771030	-136.542150	70.850650	-136.558660	9
83J10851.70	9681	0	10094	0	70.835730	-136.869920	70.829280	-136.516690	13
83J10851.71	7560	0	7920	0	70.852750	-136.614440	70.751860	-136.604370	11
83J10851.72	7139	0	7559	0	70.737890	-136.656630	70.855850	-136.667590	13
83J10851.74	10095	0	10624	0	70.812850	-136.917680	70.797530	-136.467530	17
83J10851.75	10625	0	10905	0	70.771480	-136.507980	70.850710	-136.515460	9
** Subtotal **									1331
*** Total ***									5833

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
** DOME_REGIONAL_78-79										
	DHR78002.C	1	0	4480	0	70.506070	-133.558620	70.159400	-132.762150	51
	DHR78001.H	1220	0	9999	0	70.143490	-132.727800	69.981220	-135.249270	98
	DHR78001.I	430	0	3497	0	69.972070	-135.365560	69.902350	-136.345600	38
	DHR78030.1	1	0	271	0	69.914090	-136.310680	69.892020	-136.369750	3
	DHR79004	900	0	4180	0	70.303090	-132.869460	70.467780	-133.591020	33
	DHR79005	700	0	2690	0	70.428960	-133.483640	70.586820	-133.736070	20
	DHR79007	700	0	2985	0	70.369050	-136.552060	70.475820	-136.027860	23
	DHR79008	700	0	2300	0	70.498260	-136.353650	70.363870	-136.505340	16
	DHR79010	680	0	8530	0	70.139670	-132.661550	70.433880	-134.555190	79
	DHR79012	650	0	2670	0	70.454430	-134.489300	70.272580	-134.440580	20
	DHR79013	675	0	3249	0	70.292380	-134.365630	70.358820	-135.016570	26
	DHR79001.A	300	0	11210	0	69.917600	-136.529430	70.157950	-132.656460	150
	DHR79021	1000	0	1600	0	70.637600	-134.634350	70.689960	-134.668900	6
	DHR79022	1000	0	1645	0	70.358570	-136.446400	70.409670	-136.529850	7
	DHR79026	940	0	1220	0	70.395630	-135.171540	70.350080	-135.229780	6
	DHR79027	980	0	2255	0	70.375140	-135.188930	70.412130	-135.517460	13
	DHR79028	600	0	2172	0	70.439830	-135.441790	70.298160	-135.442600	16
	DHR79007.A	950	0	7140	0	70.458820	-136.111820	70.674430	-134.576580	62
	DHR79027.A	850	0	3880	0	70.399990	-135.405610	70.466350	-136.185810	30
	DHR79027.B	850	0	2542	0	70.458760	-136.060060	70.478570	-136.508680	17
	DHR78003	1	0	547	0	70.591530	-130.844270	70.534750	-130.842910	6
	DHR78004	494	0	547	0	70.543020	-130.855440	70.605130	-130.855120	7
	DHR78001.A	3561	0	7228	0	70.143520	-132.721130	70.568410	-130.841430	85
	DHR78001.D	7229	0	1909	0	70.571230	-130.854680	70.768790	-129.378710	59
	DHR78001.E	1910	0	2100	0	70.771110	-129.346570	70.753780	-129.396120	3
	DHR79002	830	0	2415	0	70.273170	-132.283080	70.191080	-132.626680	16
	DHR79003	700	0	3529	0	70.258520	-132.241750	70.313330	-132.972960	28
	DHR79015.D	3016	0	4527	0	70.322560	-130.751080	70.220510	-131.979000	48
	DHR79003.B	5665	0	7326	0	70.707340	-131.997010	70.718480	-130.276660	63
	DHR79086	501	0	2393	0	70.296310	-130.860460	70.856620	-130.858510	63
** Subtotal **										1092
** DOME_REGIONAL_80-82										
	DHR80440	101	0	1502	0	69.791620	-139.742580	69.685960	-139.735600	12
	DHR80447	101	0	99001	0	69.515550	-138.437850	69.441480	-138.736190	14
	DHR80449	99001	0	1651	0	69.500000	-138.826170	69.566380	-138.556460	13
	DHR80450	101	0	99001	0	69.649650	-138.851010	69.468090	-138.515460	24
	DHR80451	101	0	3751	0	69.673580	-139.683430	69.665540	-138.893070	31
	DHR81001	1001	0	4090	0	69.635400	-139.302870	69.672260	-139.932770	35
	DHR80501.A	101	0	2101	0	69.911310	-137.396120	70.006580	-137.032270	18
	DHR81HI0.05	1001	0	1135	0	69.665540	-139.975820	69.655570	-140.004530	2
	DHR80001	101	0	2252	0	69.768320	-136.119290	69.908260	-136.340040	18
	DHR80052	101	0	7442	0	69.756650	-135.672150	69.663660	-136.488980	61
	DHR80047	101	0	1350	0	69.784160	-136.300710	69.785050	-136.037220	10
	DHR80048	101	0	1374	0	69.802030	-136.069840	69.800510	-136.346910	11
	DHR80049	101	0	1380	0	69.817560	-136.334610	69.817390	-136.059570	11

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
DHR80053	101	0	6500	0	69.671360	-136.505830	69.829600	-135.252050	53
DHR80309	101	0	1133	0	69.964950	-134.362660	69.966030	-134.135800	9
DHR80310	101	0	99001	0	69.879580	-134.280780	69.986390	-134.281820	12
DHR80311	101	0	1169	0	69.898640	-134.141480	69.899480	-134.373830	9
DHR80312	101	0	1514	0	69.983990	-134.238370	69.879140	-134.239290	12
DHR80530	101	0	4000	0	69.700330	-136.342360	69.993420	-136.331920	33
DHR80751	101	0	3101	0	69.904450	-136.207860	69.898710	-136.856260	25
DHR80761	101	0	2587	0	70.012900	-136.998220	69.946560	-136.494060	21
DHR80511.5	101	0	8721	0	69.919630	-133.501830	69.829020	-135.250570	70
DHR80521.C	101	0	484	0	69.934570	-135.909010	69.934850	-135.824600	3
DHR80521.D	101	0	421	0	69.934450	-135.824770	69.934910	-135.751850	3
DHR80521.E	101	0	2055	0	69.942570	-135.429380	69.988780	-135.040560	16
DHR80751.B	101	0	1920	0	69.906830	-135.952550	69.904420	-136.360660	16
DHR80515	101	0	6000	0	69.919010	-133.465610	69.992410	-132.246990	48
DHR80601	3	0	99010	0	69.964900	-133.116040	70.002240	-133.351110	31
DHR80515.B	101	0	2000	0	69.920030	-133.502470	69.930130	-133.881070	15
DHR80546.B	101	0	1000	0	69.899590	-133.492890	69.965420	-133.481930	7
DHR80546.C	101	0	7000	0	69.431840	-132.972660	69.899650	-133.491880	59
DHR80507	101	0	12000	0	70.377910	-135.163710	70.010830	-137.514730	99
DHR80525	101	0	603	0	70.244380	-137.013470	70.241120	-136.922670	3
DHR80532	101	0	6101	0	70.425130	-135.452320	69.999890	-135.833800	50
DHR80534	101	0	1101	0	70.420340	-135.176450	70.494770	-135.192490	8
DHR81R7D	2332	0	990001	0	70.318180	-135.515580	70.379710	-135.004720	20
DHR81R9B	654	0	3900	0	70.106740	-136.452190	70.263660	-135.045440	56
DHR82005	0	0	4550	0	70.373440	-135.038510	70.277020	-135.763110	29
DHR82006	0	0	2657	0	70.280820	-135.739270	70.209400	-136.128480	17
DHR82007	0	0	8725	0	70.219200	-136.070250	70.036550	-137.429990	55
DHR82009	0	0	7250	0	70.024610	-137.177350	70.414900	-137.572860	46
DHR80525.B	1001	0	9000	0	70.238310	-136.838840	70.175950	-135.092190	66
DHR80529.A	101	0	6000	0	70.378170	-135.207410	70.475920	-136.465560	49
DHR80529.B	101	0	821	0	70.478270	-136.510330	70.483350	-136.599210	3
DHR82002.A	0	0	99002	0	70.448340	-133.351500	70.440490	-133.396270	2
DHR80506	101	0	2600	0	70.345450	-132.524840	70.177240	-132.335160	20
DHR80523	101	0	3400	0	70.224240	-133.573650	70.223860	-132.822720	28
DHR80527	101	0	6625	0	70.262100	-132.152790	70.263600	-133.595370	54
DHR80609	101	0	5218	0	70.131040	-133.450290	70.131160	-132.309200	43
DHR80610	99001	0	99004	0	70.028220	-132.857150	70.127330	-133.429250	24
DHR80643	101	0	1235	0	70.216710	-132.243390	70.216970	-132.502820	10
DHR80647	101	0	1230	0	70.243730	-132.500990	70.244550	-132.256740	9
DHR80651	101	0	1010	0	70.258020	-132.256680	70.258130	-132.457700	8
DHR80653	101	0	1055	0	70.271570	-132.495560	70.271630	-132.287630	8
DHR81R10	1	0	99003	0	70.395580	-134.122470	70.507750	-134.160490	13
DHR82002	350	0	2550	0	70.445600	-133.369110	70.396220	-133.681460	13
DHR82003	0	0	5225	0	70.400250	-133.630190	70.409640	-134.529540	34
DHR82004	0	0	3500	0	70.412810	-134.489110	70.369270	-135.083980	23
DHR80525.C	101	0	8698	0	70.178360	-134.427980	70.149090	-132.554570	71
DHR80529.C	101	0	11038	0	70.381880	-132.823500	70.421270	-135.146710	91
DHR80531.A	101	0	1641	0	70.306440	-133.093570	70.308140	-132.751500	13

BEAUFORT SEA GRANULAR RESOURCE
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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	DHR80540.A	101	0	3101	0	70.273930	-134.261140	70.051630	-134.358410	25
	DHR80540.B	2101	0	5500	0	70.497470	-134.311740	70.257090	-134.269060	27
	DHR80556.A	101	0	5245	0	70.139950	-132.313290	70.452690	-132.331730	39
	DHR80605	101	0	2250	0	70.007840	-133.360230	70.008850	-132.900300	18
	DHR81R8	1	0	1129	0	70.292790	-134.452790	70.459310	-134.546190	19
	DHR81IK1.0	1	0	387	0	70.109250	-134.568770	70.115820	-134.415240	6
	DHR80820	101	0	2444	0	70.548840	-130.687320	70.416180	-131.011410	19
	DHR80821	101	0	1480	0	70.405660	-131.082570	70.407240	-131.402100	12
	DHR80823	101	0	2513	0	70.365490	-131.568280	70.318690	-131.064070	20
	DHR80825	101	0	2850	0	70.243310	-131.152500	70.257710	-131.749700	23
	DHR80827	101	0	2149	0	70.191760	-131.845690	70.185430	-131.429280	16
	DHR80829	101	0	2225	0	70.136090	-131.452100	70.128900	-131.920380	18
	DHR81IK1.7	99001	0	99002	0	70.331760	-132.000730	70.500940	-131.181110	36
	DHR80503	101	0	2000	0	70.578000	-130.866640	70.502310	-131.219850	16
	DHR80505	101	0	3000	0	70.624300	-131.338620	70.508260	-131.882220	24
	DHR80533	101	0	2000	0	70.680390	-132.517030	70.700750	-132.942610	16
	DHR80840	101	0	3000	0	70.482490	-131.300140	70.639340	-131.216840	18
	DHR80841	101	0	2842	0	70.551250	-130.752900	70.559030	-131.363560	23
	DHR80857	99001	0	99002	0	70.564350	-130.522740	70.563870	-130.716830	7
	DHR80859	99001	0	99002	0	70.574430	-130.542570	70.573740	-130.747420	8
	DHR80860	99001	0	99002	0	70.622800	-130.646290	70.539620	-130.634130	9
	DHR80861	99001	0	99002	0	70.583670	-130.554920	70.583220	-130.734090	7
	DHR80865	99001	0	99002	0	70.594070	-130.557070	70.593200	-130.747350	7
	DHR80867	99001	0	99002	0	70.603800	-130.588840	70.604430	-130.740810	6
	DHR80869	102	0	99002	0	70.509310	-131.401540	70.586750	-130.708890	27
	DHR80875	125	0	2529	0	70.617470	-130.618770	70.629600	-131.169220	20
	DHR80533.B	101	0	1000	0	70.715880	-132.506290	70.693030	-132.676850	7
	DHR80533.C	101	0	99001	0	70.682590	-132.514570	70.551680	-130.552580	74
	DHR80550.A	5000	0	7295	0	70.531760	-132.859820	70.696530	-132.843960	18
	DHR80556.B	6001	0	8718	0	70.473910	-132.279220	70.674040	-132.302520	24
	DHR80001	99001	0	99002	0	70.579120	-130.815950	70.509450	-131.169310	15
	DHR80002	99001	0	99002	0	70.548840	-130.790360	70.583010	-130.850880	4
	DHR80003	99001	0	99002	0	70.590860	-130.911850	70.555380	-130.847290	5
	DHR80004	99001	0	99002	0	70.555160	-130.870270	70.580030	-130.855260	3
	DHR80531	666	0	1150	0	70.514680	-136.553800	70.471360	-135.501140	46
	DHR81R5C	1	0	2018	0	70.584960	-134.023220	70.498440	-134.745560	29
	DHR81R8E	1129	0	2961	0	70.459440	-134.540590	70.676040	-134.663350	25
	DHR80533.C	101	0	6244	0	70.699300	-133.421940	70.728490	-134.777730	51
	DHR80540.B	101	0	2101	0	70.624090	-134.513920	70.496700	-134.306960	17
	DHR80546.A	101	0	3000	0	70.724360	-133.499830	70.500760	-133.494050	25
** Subtotal **										2471
** ARLUK_E90										
	DHR81302.0A	296	0	303	0	70.317620	-135.479220	70.305000	-135.479000	1
	DHR81303.4A	170	0	99001	0	70.305240	-135.441740	70.320520	-135.441900	2
	DHR81130.21	43	0	63	0	70.310410	-135.494970	70.310720	-135.387920	4
	DHR81130.32	212	0	99001	0	70.305270	-135.446410	70.320510	-135.447130	2

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	DHR81130.34	85	0	99001	0	70.305260	-135.441030	70.320510	-135.441830	2
	DHR81130.42	127	0	99001	0	70.305310	-135.420870	70.320480	-135.421480	2
	DHR81130.48	64	0	99001	0	70.305240	-135.404480	70.320530	-135.404390	2
	DHR81303.9A	304	0	311	0	70.335660	-135.453450	70.335670	-135.494540	2
	DHR81130.20	22	0	99001	0	70.341030	-135.479480	70.320400	-135.479450	2
	DHR81130.33	254	0	274	0	70.321440	-135.388980	70.321370	-135.495930	4
	DHR81130.35	233	0	253	0	70.323200	-135.495440	70.323300	-135.388790	4
	DHR81130.36	191	0	99001	0	70.341130	-135.437010	70.320500	-135.436830	2
	DHR81130.37	275	0	295	0	70.324940	-135.495390	70.325020	-135.388550	4
	DHR81130.38	106	0	99001	0	70.341160	-135.431460	70.320550	-135.430950	2
	DHR81130.46	149	0	99001	0	70.341170	-135.409780	70.320550	-135.409930	2
	DHR81130.49	1	0	21	0	70.335710	-135.388990	70.335630	-135.496410	4
** Subtotal **										41
** HERSCHEL_GSN										
	DHR81N10.18	1001	0	1444	0	69.568321	-138.824570	69.529030	-138.745300	5
	DHR81N10.20	1001	0	1466	0	69.567299	-138.830856	69.527946	-138.749527	5
	DHR81N10.22	1001	0	1474	0	69.566109	-138.835022	69.526970	-138.753448	5
	DHR81N02.2A	1001	0	1488	0	69.527214	-138.754715	69.566254	-138.836716	5
	DHR81N10.24	1001	0	1454	0	69.564522	-138.837296	69.526047	-138.758118	5
	DHR81N10.26	1001	0	1483	0	69.525162	-138.761749	69.564095	-138.845032	5
	DHR81N10.28	1001	0	1487	0	69.524307	-138.765121	69.563057	-138.849106	5
** Subtotal **										38
** HERSCHEL										
	DHR80440	101	0	1500	0	69.791908	-139.752182	69.687363	-139.747192	12
	DHR80451	101	0	1550	0	69.675667	-139.700439	69.666428	-139.393494	12
	DHR80507	18725	0	21150	0	69.857330	-138.900238	69.798332	-139.400513	20
	DHR80447	101	0	1875	0	69.515892	-138.448395	69.441269	-138.759460	15
	DHR80449	101	0	1691	0	69.499969	-138.848831	69.567413	-138.566391	13
	DHR80450	101	0	2987	0	69.650848	-138.859894	69.466110	-138.523239	24
** Subtotal **										97
** ISSERK										
	DHR80309	101	0	1133	0	69.966030	-134.348560	69.966540	-134.123520	9
	DHR80310	101	0	1530	0	69.879780	-134.266600	69.986630	-134.266970	12
	DHR80311	101	0	1169	0	69.899640	-134.128010	69.899650	-134.359280	9
	DHR80312	101	0	1514	0	69.984690	-134.225190	69.879360	-134.226140	12
	DHR80515.B	2450	0	5450	0	69.931440	-133.957370	69.916200	-134.577870	25
** Subtotal **										66
** SOUTH_KAGLULIK										
	DHR80825	101	0	2850	0	70.241249	-131.148163	70.253853	-131.750778	23
	DHR80827	101	0	2149	0	70.189659	-131.844055	70.182808	-131.426636	16

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	DHR80829	101	0	2225	0	70.133186	-131.454727	70.125847	-131.919800	18
	DHR80820	101	0	2444	0	70.549828	-130.674942	70.414749	-131.006470	19
	DHR80821	101	0	1481	0	70.405594	-131.080765	70.405518	-131.401306	12
	DHR80823	101	0	2511	0	70.362770	-131.565887	70.316940	-131.059052	20
** Subtotal **										108
** KOGYUK										
	DHR81010	100	0	99001	0	70.113870	-133.280700	70.100810	-133.388030	4
	DHR81311	660	0	99001	0	70.113980	-133.353320	70.113310	-133.287700	2
	DHR81312	995	0	99001	0	70.111480	-133.353590	70.111130	-133.287870	3
	DHR81313	995	0	99001	0	70.109550	-133.353780	70.108870	-133.288120	3
	DHR81314	995	0	99001	0	70.107190	-133.353650	70.106660	-133.288280	2
	DHR81315	990	0	99001	0	70.105000	-133.353640	70.104390	-133.288510	2
	DHR81316	1002	0	99001	0	70.103190	-133.355740	70.102350	-133.288770	3
	DHR81317	995	0	99001	0	70.100600	-133.354460	70.099900	-133.288900	2
	DHR81318	995	0	99002	0	70.098150	-133.354370	70.097610	-133.289110	3
	DHR81319	990	0	99001	0	70.096120	-133.355990	70.095520	-133.289280	3
	DHR81320	988	0	99001	0	70.093880	-133.355290	70.093310	-133.289490	3
	DHR81321	995	0	99001	0	70.091750	-133.355030	70.091030	-133.289640	2
	DHR81322	1010	0	99003	0	70.088430	-133.352110	70.116100	-133.348680	3
	DHR81323	99001	0	99002	0	70.089270	-133.337690	70.116010	-133.335830	3
	DHR81324	1000	0	99001	0	70.089320	-133.325030	70.115890	-133.322390	3
	DHR81325	991	0	99001	0	70.089650	-133.311780	70.115790	-133.309600	3
	DHR81326	990	0	99001	0	70.088230	-133.298100	70.115670	-133.296570	3
	DHR81312.A	1001	0	99001	0	70.111820	-133.356160	70.111120	-133.287890	3
	DHR81316.A	995	0	1025	0	70.102740	-133.355240	70.102070	-133.280610	3
	DHR81323.A	995	0	99001	0	70.089960	-133.338200	70.115990	-133.335770	3
	DHR81078	1000	0	99001	0	70.085010	-133.183910	70.086060	-133.289960	4
	DHR81327.A	1000	0	99001	0	70.090920	-133.285130	70.115520	-133.283570	3
	DHR81328	998	0	99001	0	70.089640	-133.272490	70.115400	-133.270310	3
	DHR81329	998	0	99001	0	70.089520	-133.258800	70.115270	-133.256900	3
	DHR81332	995	0	99001	0	70.088970	-133.219530	70.114900	-133.217440	3
	DHR81350	99001	0	99006	0	70.083640	-133.246830	70.115570	-133.286620	4
	DHR81327.AA	1000	0	99001	0	70.088460	-133.285450	70.115550	-133.283570	3
	DHR81330.A	998	0	99001	0	70.089660	-133.246260	70.115140	-133.243700	3
	DHR81331.A	995	0	99001	0	70.089060	-133.233050	70.115010	-133.230800	3
	DHR81046	99002	0	99001	0	70.121070	-133.391830	70.120320	-133.287080	4
	DHR81301	1006	0	99001	0	70.136120	-133.321090	70.135810	-133.285870	1
	DHR81302	1008	0	99001	0	70.134090	-133.354450	70.133370	-133.286030	3
	DHR81303	995	0	99001	0	70.132060	-133.351430	70.131300	-133.286270	2
	DHR81304	995	0	99001	0	70.132040	-133.352080	70.129120	-133.286380	3
	DHR81305	1005	0	99001	0	70.127550	-133.352200	70.126710	-133.286560	2
	DHR81306	1006	0	99001	0	70.125020	-133.352890	70.124660	-133.286760	3
	DHR81307	995	0	99001	0	70.122960	-133.352720	70.122330	-133.286910	2
	DHR81308	995	0	99001	0	70.120870	-133.352680	70.120160	-133.287090	2
	DHR81309	995	0	99001	0	70.118380	-133.353270	70.117860	-133.287250	3
	DHR81310	1000	0	99001	0	70.116140	-133.354070	70.115660	-133.287420	3

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	DHR81306.A	1003	0	99001	0	70.125240	-133.353940	70.124570	-133.286700	3
	DHR81043	995	0	99001	0	70.128110	-133.250960	70.130710	-133.207210	2
	DHR81351	955	0	99001	0	70.131820	-133.267200	70.115180	-133.241840	2
	DHR81045	1224	0	99002	0	70.100560	-133.122860	70.101360	-133.209720	3
	DHR81047	99003	0	99002	0	70.136310	-133.116170	70.137160	-133.206640	3
	DHR81075	99001	0	99002	0	70.154030	-133.389980	70.154400	-133.284210	4
	DHR81018	99003	0	99002	0	70.155420	-133.231460	70.141950	-133.232300	2
	DHR81089	99001	0	99004	0	70.155790	-133.263570	70.138760	-133.258560	2
** Subtotal **										132
** NERLERK_RIDGE										
	DHR81140.1	1	0	15	0	70.296430	-133.382290	70.316640	-133.337680	3
	DHR81140.6	101	0	115	0	70.321450	-133.376500	70.306330	-133.315190	3
	DHR81140.7	116	0	131	0	70.298330	-133.328060	70.314350	-133.392670	3
	DHR81140.8	132	0	147	0	70.307030	-133.407850	70.290920	-133.343750	3
	DHR81140.9	148	0	156	0	70.284190	-133.359130	70.292730	-133.393400	2
	DHR81140.4	69	0	84	0	70.336720	-133.343640	70.320020	-133.280880	3
	DHR81140.5	85	0	100	0	70.312810	-133.296360	70.328850	-133.361210	3
	DHR81140.2	37	0	52	0	70.350400	-133.312580	70.334500	-133.249020	3
	DHR81140.2A	173	0	188	0	70.334970	-133.248600	70.350960	-133.312940	3
	DHR81140.3	53	0	68	0	70.327340	-133.264970	70.343190	-133.329250	3
	DHR81140.3A	157	0	172	0	70.343690	-133.328460	70.327630	-133.264300	3
** Subtotal **										31
** TARSUIT										
	DHR80046	1400	0	2252	0	69.851090	-136.253530	69.906700	-136.343510	7
	DHR80053	2125	0	3500	0	69.850870	-136.340700	69.953550	-136.334500	11
	DHR80730	101	0	1110	0	69.929660	-136.463150	69.854450	-136.458570	8
	DHR80740	101	0	1125	0	69.858700	-136.348240	69.934180	-136.331600	9
	DHR80745	101	0	1625	0	69.866610	-136.455060	69.868920	-136.125490	13
	DHR80747	101	0	1625	0	69.875360	-136.458330	69.876630	-136.129010	13
	DHR80750	101	0	1116	0	69.930980	-136.201290	69.855460	-136.197280	8
	DHR80751	101	0	1750	0	69.894490	-136.195920	69.891900	-136.552830	14
	DHR80753	101	0	1625	0	69.902300	-136.459950	69.905070	-136.130140	13
	DHR80754	101	0	1150	0	69.931600	-136.145950	69.853380	-136.142300	9
	DHR80759	101	0	1625	0	69.929360	-136.462190	69.931650	-136.131560	13
	DHR80761	2275	0	2587	0	69.944690	-136.547100	69.937420	-136.481960	3
	DHR80783	101	0	325	0	69.864660	-136.173520	69.864790	-136.125610	2
	DHR80785	101	0	325	0	69.873140	-136.174480	69.873260	-136.125850	2
	DHR80787	1800	0	2066	0	69.882020	-136.126980	69.882300	-136.185930	2
	DHR80749.C	101	0	350	0	69.886170	-136.175340	69.886800	-136.120760	2
	DHR80532	6700	0	7431	0	69.957300	-135.864120	69.905080	-135.910830	6
	DHR80743	101	0	925	0	69.861180	-135.938430	69.860060	-136.115170	7
	DHR80749	101	0	975	0	69.888630	-135.938290	69.885410	-136.118940	7
	DHR80755	101	0	925	0	69.915460	-135.939930	69.914070	-136.117780	7
	DHR80757	101	0	925	0	69.924140	-135.940960	69.923010	-136.118530	7

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	DHR80760	101	0	1206	0	69.860270	-136.066800	69.935760	-136.071030	9
	DHR80764	101	0	627	0	69.864850	-136.041700	69.904310	-136.042270	4
	DHR80770	101	0	1109	0	69.933060	-135.941410	69.857620	-135.938280	8
	DHR80780	101	0	680	0	69.866100	-135.884920	69.909550	-135.886670	5
	DHR80789	101	0	1750	0	69.893520	-135.759060	69.891620	-136.115490	14
	DHR80790	101	0	628	0	69.902300	-135.760350	69.863460	-135.758100	4
	DHR80791	101	0	1750	0	69.901920	-135.759020	69.900640	-136.116530	14
	DHR80521.C	101	0	484	0	69.933340	-135.907650	69.933460	-135.826840	3
	DHR80521.D	101	0	421	0	69.933430	-135.824890	69.933710	-135.749470	3
	DHR80751.B	101	0	900	0	69.896740	-135.941240	69.896070	-136.119310	7
** Subtotal **										233
** TINGMIARK-UKALERK										
	DHR80601	111	30500	111	121400	69.968071	-133.103943	70.093391	-133.501190	78
	DHR80521	8200	0	12750	0	70.042938	-133.684113	70.040543	-132.795364	34
	DHR80523	1000	0	3450	0	70.225517	-133.374527	70.225449	-132.837967	20
	DHR80605	101	0	2250	0	70.008896	-133.346954	70.009171	-132.895035	17
	DHR80609	101	0	3800	0	70.131966	-133.443893	70.133369	-132.641693	30
	DHR80160	101	0	3550	0	70.027924	-132.851257	70.134003	-133.452057	26
	DHR80999	4000	0	7700	0	70.179665	-133.551666	70.162910	-132.745773	31
	DHR80527	1000	0	2225	0	70.263985	-132.357635	70.264816	-132.627502	10
** Subtotal **										247
** TINGMIARK_K91										
	DHR00001	1	0	108	0	70.177635	-133.024170	70.176689	-132.939285	3
	DHR00002	1	0	54	0	70.191185	-132.980042	70.162727	-132.983521	3
	DHR00003	1	0	54	0	70.166756	-132.954086	70.187851	-133.011368	3
	DHR00004	1	0	54	0	70.186684	-132.950912	70.167496	-133.012009	3
** Subtotal **										13
** UVILUK_P66										
	DHR81405.4A	1510	0	99001	0	70.233990	-132.262910	70.250870	-132.260670	2
	DHR81140.1	160400	0	99001	0	70.230320	-132.274480	70.231220	-132.323750	2
	DHR81140.3	1364	0	99001	0	70.233980	-132.267350	70.234890	-132.323180	2
	DHR81140.5	1490	0	99001	0	70.227230	-132.295820	70.227590	-132.324140	1
	DHR81140.19	1734	0	99001	0	70.247910	-132.240370	70.249150	-132.321350	3
	DHR81140.21	1942	0	99001	0	70.250220	-132.266530	70.251010	-132.321110	2
	DHR81140.32	2141	0	99001	0	70.247380	-132.319730	70.251790	-132.319020	0
	DHR81140.34	1093	0	99001	0	70.224000	-132.314870	70.251720	-132.313870	3
	DHR81140.36	2181	0	99001	0	70.248910	-132.308760	70.251630	-132.308370	0
	DHR81140.38	936	0	99001	0	70.223840	-132.306720	70.251560	-132.303190	3
	DHR81140.42	781	0	99001	0	70.225560	-132.296040	70.251390	-132.292590	3
	DHR81140.48	2219	0	99001	0	70.246700	-132.277390	70.251120	-132.276540	0
	DHR81140.58	78	0	99001	0	70.242000	-132.250550	70.250700	-132.250110	1
	DHR81405.0A	2342	0	2358	0	70.255620	-132.270860	70.284770	-132.266920	3

BEAUFORT SEA GRANULAR RESOURCE
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LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
DHRB1140.23	1811	0	99001	0	70.251510	-132.245040	70.252750	-132.320950	3
DHRB1140.27	1661	0	99001	0	70.254670	-132.213010	70.256280	-132.320480	4
DHRB1140.37	2049	0	99001	0	70.264310	-132.264390	70.265180	-132.319380	2
DHRB1140.40	2239	0	99001	0	70.279160	-132.293880	70.251430	-132.297940	3
DHRB1140.41	2022	0	2027	0	70.268010	-132.263950	70.268430	-132.290880	1
DHRB1140.43	1885	0	99001	0	70.269070	-132.216400	70.270650	-132.318630	4
DHRB1140.44	2161	0	99001	0	70.279030	-132.283690	70.251260	-132.287430	3
DHRB1140.45	1982	0	99001	0	70.271500	-132.263630	70.272330	-132.318450	2
DHRB1140.49	2089	0	99001	0	70.275120	-132.262970	70.275960	-132.317960	2
DHRB1140.62	1247	0	99001	0	70.251610	-132.240100	70.286390	-132.235120	4
DHRB1140.66	1424	0	99001	0	70.256870	-132.228390	70.286210	-132.224500	3
DHRB1140.2	337	0	99001	0	70.243380	-132.400890	70.252960	-132.398820	1
DHRB1140.7	1704	0	99001	0	70.239680	-132.405150	70.238400	-132.322750	3
DHRB1140.-2	431	0	99001	0	70.247900	-132.409730	70.253100	-132.409320	1
DHRB1140.11	1627	0	99001	0	70.243250	-132.410200	70.242010	-132.322250	3
DHRB1140.14	652	0	99001	0	70.224950	-132.370530	70.252500	-132.366970	3
DHRB1140.15	1391	0	99001	0	70.246710	-132.409760	70.245570	-132.321790	3
DHRB1140.18	513	0	99001	0	70.224690	-132.359940	70.252340	-132.356320	3
DHRB1140.28	2259	0	99001	0	70.247510	-132.330410	70.251920	-132.329650	0
DHRB1401.0A	2300	0	99002	0	70.278790	-132.374100	70.288480	-132.372910	1
DHRB1402.0A	2121	0	99001	0	70.279900	-132.347490	70.252210	-132.351180	3
DHRB1402.4A	2279	0	99001	0	70.279820	-132.336760	70.252040	-132.340300	3
DHRB1004.1A	2069	0	99001	0	70.269490	-132.359180	70.268750	-132.318880	2
DHRB1140.2A	2109	0	2119	0	70.279980	-132.347890	70.261850	-132.347930	2
DHRB1140.24	2200	0	99001	0	70.279310	-132.336530	70.252050	-132.340330	3
DHRB1140.25	2029	0	99001	0	70.253490	-132.361360	70.254440	-132.320740	2
DHRB1140.29	2002	0	99001	0	70.258640	-132.360610	70.258050	-132.320250	2
DHRB1140.31	1844	0	99001	0	70.261410	-132.429120	70.259830	-132.320040	4
DHRB1140.33	1962	0	99001	0	70.262170	-132.360180	70.261640	-132.319790	2
DHRB1140.35	1769	0	99001	0	70.265040	-132.428590	70.263400	-132.319580	4
DHRB1140.49A	1926	0	1940	0	70.282940	-132.426380	70.281830	-132.351000	3
DHRB1401.31	249	0	99001	0	70.347790	-132.202760	70.349610	-132.307690	4
DHRB1401.35	152	0	99001	0	70.351360	-132.207730	70.353240	-132.307110	4
DHRB1401.39	201	0	218	0	70.355140	-132.212490	70.356780	-132.305010	3
DHRB1401.47	1586	0	99001	0	70.362490	-132.230100	70.363960	-132.305470	3
DHRB1407.0A	1481	0	99001	0	70.342320	-132.206150	70.330830	-132.207660	1
DHRB1140.46	1017	0	99003	0	70.366650	-132.265960	70.331800	-132.271450	4
DHRB1140.50	1169	0	99003	0	70.371010	-132.255200	70.331620	-132.260820	4
DHRB1140.54	1	0	99003	0	70.368360	-132.244260	70.331460	-132.250340	4
DHRB1140.70	1311	0	99001	0	70.347850	-132.204800	70.330840	-132.207660	2
DHRB1402.2B	2323	0	99002	0	70.299560	-132.339140	70.287910	-132.340620	1
DHRB1140.6	464	0	99002	0	70.318020	-132.379760	70.288580	-132.383160	3
DHRB1140.10	377	0	99002	0	70.325000	-132.367830	70.288390	-132.372760	4
DHRB1401.15	274	0	99001	0	70.335530	-132.345520	70.334950	-132.310360	1
DHRB1401.19	220	0	99001	0	70.339210	-132.345180	70.338710	-132.309890	1
DHRB1401.23	174	0	99001	0	70.342670	-132.334090	70.342290	-132.309400	1
DHRB1402.2A	715	0	99003	0	70.340610	-132.334560	70.332720	-132.335510	1
DHRB1140.26	863	0	99003	0	70.353140	-132.322270	70.332600	-132.324860	2

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	DHR81140.30	575	0	99003	0	70.360040	-132.310490	70.332430	-132.314300	3
** Subtotal **										154
** UVILUK										
	DHR80556	101	0	1350	0	70.141690	-132.317000	70.235310	-132.318480	10
	DHR80643	101	0	1285	0	70.214130	-132.228470	70.213700	-132.488770	10
	DHR80527	101	0	1675	0	70.263050	-132.153870	70.263680	-132.501800	13
	DHR80647	101	0	1230	0	70.241610	-132.487950	70.241940	-132.243360	9
	DHR80651	101	0	1010	0	70.254850	-132.256780	70.253440	-132.456510	8
	DHR80653	101	0	1035	0	70.268750	-132.481600	70.269340	-132.271990	8
	DHR80506	101	0	850	0	70.344540	-132.512500	70.291550	-132.463070	6
	DHR80503	5860	0	7125	0	70.339570	-131.942580	70.286060	-132.172990	11
** Subtotal **										75
*** Total ***										4797

BEAUFORT SEA GRANULAR RESOURCE
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LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
** GULF_REGIONAL_1981									
GHR81129	1000	0	1100	0	69.952620	-133.651510	70.018140	-133.643250	7
GHR81062.A	955	0	1150	0	69.963840	-134.114880	69.961270	-133.707980	16
GHR81007	99001	0	1000	0	70.057920	-133.685870	69.858150	-133.672000	22
GHR81002.A	995	0	1175	0	69.935460	-133.319840	69.943690	-133.712070	15
GHR81025	995	0	1605	0	69.932240	-133.497150	69.933010	-134.755200	48
GHR81061	995	0	1064	0	69.925480	-134.939190	69.965810	-134.840930	6
GHR81062	995	0	1296	0	69.969640	-134.784030	69.964090	-134.139940	25
GHR81063	995	0	1248	0	69.952880	-133.683500	69.895780	-134.100110	21
GHR81068	995	0	1004	0	69.872400	-134.537840	69.876960	-134.506440	1
GHR8169	995	0	1356	0	69.876150	-134.429110	69.871740	-133.659000	30
GHR81083	995	0	1202	0	69.982390	-132.748460	69.984540	-133.233580	19
GHR1083A.A	1210	0	1302	0	69.984860	-133.298680	69.985500	-133.515700	8
GHR81020.A	995	0	1086	0	69.978650	-136.181120	70.005160	-136.025830	7
GHR81066.A	995	0	1162	0	69.632530	-136.308260	69.674720	-136.036710	12
GHR81066.B	995	0	1248	0	69.684110	-135.911180	69.747450	-135.384350	22
GHR81092.A	1060	0	1024	0	69.890780	-136.252690	69.971160	-136.393300	11
GHR81026	1000	0	1039	0	69.929670	-135.009190	69.924690	-135.074910	3
GHR81027	1000	0	1249	0	69.898220	-135.459920	69.928960	-134.841170	24
GHR81030	995	0	1294	0	69.896650	-136.112990	69.907330	-135.343050	30
GHR81040	995	0	1102	0	69.917930	-135.720900	70.009540	-135.709810	10
GHR81064	1600	0	1666	0	69.854160	-134.878710	69.879050	-135.015930	6
GHR81065	4932	0	4933	0	69.915100	-135.200620	69.880210	-135.020680	8
GHR81066	1000	0	1261	0	69.763320	-135.604000	69.698720	-136.194400	24
GHR81067	995	0	1302	0	69.744780	-135.361740	69.836220	-134.760280	25
GHR81095	995	0	1251	0	70.003750	-136.585040	69.875650	-136.764570	16
GHR81096	995	0	1076	0	69.892460	-136.576140	69.885250	-136.343750	9
GHR81097	995	0	1242	0	70.015860	-136.553770	70.143420	-136.197780	20
GHR81098	1000	0	1378	0	70.107060	-136.177630	69.879290	-136.626830	31
GHR81022.B	995	0	1109	0	70.154240	-134.203710	70.151940	-133.933080	10
GHR81040.A	995	0	1090	0	70.239270	-135.358150	70.240500	-135.109850	9
GHR81060.A	955	0	1134	0	70.084120	-135.091000	69.918050	-134.996220	20
GHR81000.6	1000	0	1100	0	70.050580	-133.948110	70.051930	-134.146030	8
GHR81000.7	995	0	1090	0	70.064010	-134.162810	70.062340	-134.001940	6
GHR81000.8	1000	0	1121	0	70.098610	-133.999040	70.099460	-134.218960	8
GHR81000.9	1000	0	1026	0	70.108440	-134.215880	70.108260	-134.180480	1
GHR81001.0	995	0	1178	0	70.117880	-134.216950	70.115750	-133.942930	10
GHR81001.1	995	0	1087	0	70.136420	-134.215930	70.133340	-133.933350	11
GHR81001.2	995	0	1186	0	70.142940	-133.941470	70.145110	-134.212160	10
GHR81001.4	995	0	1208	0	70.180060	-134.173650	70.033960	-134.114660	16
GHR81015	995	0	1303	0	70.082020	-133.913640	70.108890	-134.575300	25
GHR81016	1001	0	1634	0	70.097470	-134.656690	69.925570	-135.968260	54
GHR81021	1000	0	1616	0	70.007960	-136.002930	70.147470	-134.661120	53
GHR81022	995	0	1084	0	70.157820	-134.459980	70.156180	-134.169680	11
GHR81023	955	0	994	0	70.144940	-134.056290	70.126450	-134.056960	2
GHR81079	1001	0	1280	0	70.068690	-134.551580	70.070310	-134.019790	20
GHR81041.B	995	0	1281	0	70.241490	-135.033360	70.304510	-134.212630	32
GHR81801	995	0	1048	0	70.325230	-134.524600	70.322570	-134.380340	5

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LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
GHR81806	994	0	1060	0	70.311230	-134.525500	70.311640	-134.373580	6
GHR81811	995	0	1057	0	70.299840	-134.525390	70.299400	-134.382340	5
GHR81821	995	0	1060	0	70.277640	-134.526570	70.286880	-134.361440	6
GHR81000.4	995	0	1101	0	70.289500	-134.507460	70.353880	-134.494080	7
GHR81005	1000	0	1195	0	70.358190	-134.479160	70.082080	-133.915070	37
GHR81035	1000	0	1103	0	70.305630	-134.871280	70.302890	-134.647870	8
GHR81051	995	0	1135	0	70.266510	-134.345960	70.384110	-134.486500	14
GHR81052	999	0	1191	0	70.413270	-134.516790	70.290360	-134.449230	14
GHR81835.D	1000	0	1100	0	70.321950	-134.387090	70.272570	-134.536290	8
GHR81010.A	1000	0	1049	0	70.083100	-133.765630	70.101270	-133.837850	3
GHR81001	101	0	109	0	70.279120	-133.243410	70.291520	-133.348420	4
GHR81002	100	0	121	0	70.293450	-133.377060	70.276850	-133.596560	8
GHR81010	100	0	262	0	70.113820	-133.282060	70.070070	-133.636580	14
GHR81113.4	995	0	1083	0	70.315700	-133.351360	70.212310	-133.361940	12
GHR81113.6	995	0	99004	0	70.295120	-133.312290	70.223950	-133.320390	8
GHR81311	660	0	99003	0	70.113680	-133.354650	70.112580	-132.665240	26
GHR81350	955	0	1193	0	70.031760	-133.330080	70.135890	-133.322460	13
GHR81070.A	1000	0	1307	0	70.231570	-133.219650	70.223250	-132.613020	23
GHR81071.A	1000	0	1284	0	70.214380	-132.616710	70.221280	-133.149930	20
GHR81072.A	1000	0	1269	0	70.203030	-133.132520	70.195830	-132.619890	19
GHR81075.A	995	0	1241	0	70.152470	-133.485890	70.154790	-132.619770	33
GHR81078.A	1000	0	1410	0	70.084410	-133.185000	70.085940	-134.118680	36
GHR81079.C	995	0	1324	0	70.071370	-133.194700	70.071130	-132.628070	22
GHR81039.C	2506	0	3561	0	70.227600	-133.917070	70.362160	-132.007250	73
GHR81000.1	1000	0	99001	0	70.231800	-132.593400	70.240880	-133.308910	27
GHR81000.2	995	0	1293	0	70.254810	-133.312990	70.247760	-132.727110	22
GHR81005.A	100	0	165	0	70.236730	-133.879880	70.229380	-133.196470	26
GHR81006	100	0	123	0	70.234290	-133.228240	70.243010	-133.736920	19
GHR81008	1000	0	1391	0	70.057390	-133.662490	70.055210	-132.990390	26
GHR81009	1000	0	1095	0	70.055320	-133.001710	70.109800	-132.997070	6
GHR81012	1000	0	1112	0	70.104840	-133.685210	70.103070	-133.415310	10
GHR81001.5	995	0	1282	0	70.304180	-132.842770	70.045910	-132.816440	29
GHR81001.7	995	0	1437	0	69.948420	-133.737580	70.304300	-133.672150	40
GHR81001.8	1000	0	1819	0	70.504810	-133.203930	69.939740	-133.248980	63
GHR81000.3A	995	0	1603	0	70.272000	-132.884520	70.281620	-133.992040	42
GHR81041	1000	0	1167	0	70.361400	-132.004070	70.263040	-132.315170	16
GHR81042	995	0	1053	0	70.165180	-132.695020	70.177050	-132.478960	8
GHR81043	995	0	1300	0	70.127650	-133.248700	70.160810	-132.707630	21
GHR81044	1119	0	1279	0	70.108680	-132.715330	69.995930	-132.727740	13
GHR81045	995	0	1419	0	70.094480	-132.631840	70.103550	-133.513400	34
GHR81046	1079	0	1502	0	70.120660	-133.365280	70.111890	-132.631040	28
GHR81047	995	0	1427	0	70.130010	-132.635070	70.137800	-133.536820	34
GHR81048	1000	0	1242	0	70.139830	-133.524170	70.202220	-133.150120	16
GHR81001.7A	995	0	1160	0	70.228870	-133.557880	70.228910	-133.159730	15
GHR81071	1028	0	1200	0	70.218080	-133.567810	70.218050	-133.145720	16
GHR81072	995	0	99002	0	70.206910	-133.573360	70.203990	-133.145280	16
GHR81073	1000	0	1298	0	70.184970	-133.581270	70.185160	-133.006000	22
GHR81074	1000	0	1394	0	70.173820	-132.630810	70.172180	-133.538240	34

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	GHR81076	1000	0	1209	0	70.122410	-132.625350	70.087350	-133.147370	20
	GHR81080	995	0	1314	0	70.215610	-133.592390	70.165210	-132.807100	30
	GHR81081	995	0	1211	0	70.036910	-132.896790	70.039950	-133.414670	20
	GHR81082	1000	0	1342	0	70.013300	-133.501480	70.013570	-132.897230	23
	GHR81085	1000	0	1143	0	70.212890	-133.111150	70.279970	-132.815020	13
	GHR81086	995	0	1425	0	70.307630	-133.567660	70.299460	-132.787920	29
	GHR81087	995	0	1290	0	70.316200	-132.786740	70.323760	-133.576040	30
	GHR81088	1000	0	1120	0	70.342660	-133.559540	70.341720	-133.377140	7
	GHR81089	1000	0	1118	0	70.227830	-133.285720	70.139240	-133.261540	10
	GHR81090	1000	0	1234	0	70.224080	-133.571080	70.212420	-134.109730	20
	GHR81091	1000	0	1140	0	70.186870	-132.959110	70.136880	-132.630620	14
	GHR81084	1000	0	1330	0	70.291730	-132.789840	70.289190	-133.565450	29
	GHR81141.8	995	0	1281	0	70.243030	-135.030750	70.305700	-134.210330	32
	GHR81166.8	995	0	1248	0	69.684650	-135.912090	69.748610	-135.383680	22
	GHR81811.4	995	0	1208	0	70.180660	-134.173480	70.035450	-134.117040	16
	GHR81811.7	995	0	1437	0	69.948870	-133.737920	70.304730	-133.669920	40
	GHR81811.8	1000	0	1819	0	70.505140	-133.200970	69.939610	-133.249620	63
	GHR81814.3	995	0	1300	0	70.128000	-133.248090	70.161250	-132.707580	21
	GHR81816.9	995	0	1356	0	69.876550	-134.427670	69.871780	-133.657330	30
	GHR81819.9	1000	0	3551	0	69.961270	-136.996740	70.362690	-132.013730	194
** Subtotal **										2453
** GULF_REGIONAL_1982										
	GHR8201	0	0	2075	0	70.256790	-132.414170	70.227360	-132.752630	13
	GHR8202	0	0	2400	0	70.221770	-132.661670	70.307510	-132.973690	15
	GHR8203	0	0	3675	0	70.206000	-133.558620	70.274790	-132.969740	24
	GHR8204	0	0	2800	0	70.114160	-133.313070	70.054570	-133.744420	18
	GHR8205	0	0	1550	0	70.057340	-133.712300	70.097900	-133.940050	10
	GHR8206	0	0	17500	0	70.094380	-133.909160	69.901600	-136.734890	111
	GHR8207	0	0	2700	0	69.903320	-136.707280	70.029080	-136.453920	17
	GHR8208	0	0	19525	0	70.229160	-133.459120	70.113940	-136.316910	124
** Subtotal **										331
** AKPAK										
	REGLINE1.0	1850	0	2256	0	70.184810	-134.225400	70.208280	-134.167220	3
	REGLINE2.0	105	0	520	0	70.206950	-134.177920	70.184590	-134.114880	3
	LINE302	101	0	411	0	70.216060	-134.201450	70.192710	-134.201510	3
	LINE307	101	0	409	0	70.194630	-134.185930	70.217760	-134.186920	3
	LINE312	101	0	411	0	70.194550	-134.174700	70.217810	-134.174130	3
	LINE317	101	0	413	0	70.215710	-134.159060	70.192680	-134.162370	3
	LINE322	101	0	411	0	70.215680	-134.147100	70.192490	-134.149030	3
	LINE780	101	0	408	0	70.195800	-134.205900	70.195950	-134.138440	3
	LINE805	101	0	412	0	70.198040	-134.206150	70.198190	-134.137740	3
	LINE830	101	0	408	0	70.199870	-134.143560	70.200960	-134.210970	3
	LINE855	101	0	409	0	70.202520	-134.143340	70.203400	-134.211380	3
	LINE880	101	0	409	0	70.205330	-134.142870	70.205360	-134.210890	3

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	LINE905	101	0	409	0	70.207400	-134.205540	70.207300	-134.137540	3
	LINE930	101	0	408	0	70.210300	-134.205510	70.209660	-134.137800	3
	LINE955	101	0	413	0	70.212200	-134.205480	70.211820	-134.136810	3
	LINE980	101	0	412	0	70.214460	-134.142590	70.214420	-134.211150	3
** Subtotal **										43
** AMAULIGAK										
	GHR81124	995	0	1015	0	70.042690	-133.706800	70.060150	-133.706250	2
	GHR81125	986	0	1015	0	70.042540	-133.694440	70.061790	-133.693360	2
	GHR81126	995	0	1010	0	70.042580	-133.681310	70.054280	-133.680600	1
	GHR81127	991	0	1015	0	70.042350	-133.668180	70.059160	-133.667150	2
	GHR81128	995	0	1020	0	70.042390	-133.655590	70.060670	-133.654180	2
	GHR81128.A	983	0	1015	0	70.042400	-133.655180	70.062130	-133.653520	2
	GHR81129.B	991	0	1015	0	70.042070	-133.641940	70.059690	-133.640960	2
	GHR82510.1	9925	0	10250	0	70.041640	-133.713760	70.061060	-133.712560	2
	GHR82510.3	2375	0	2725	0	70.041400	-133.673100	70.061230	-133.671600	2
	GHR82510.4	1025	0	1350	0	70.057050	-133.586230	70.057530	-133.640610	2
	GHR82510.5	8450	0	8775	0	70.041120	-133.622060	70.060060	-133.620450	2
	GHR82510.6	3375	0	4075	0	70.059990	-133.591920	70.060670	-133.708760	4
	GHR82510.4B	6400	0	7200	0	70.057320	-133.584170	70.058340	-133.719390	5
	GHR82A51.02	4100	0	4900	0	70.046360	-133.585010	70.047340	-133.719300	5
	GHR82A51.06	2050	0	2850	0	70.055240	-133.584200	70.056270	-133.718550	5
	GHR84201	243	0	296	0	70.035850	-133.579100	70.035460	-133.719160	5
	GHR84209	1546	0	1598	0	70.020840	-133.577870	70.021150	-133.714290	5
	GHR84213	1337	0	1388	0	70.026410	-133.582700	70.026430	-133.716720	5
	GHR84216	1884	0	1917	0	70.016110	-133.719530	70.045340	-133.720320	3
	GHR84218	1852	0	1883	0	70.044040	-133.692200	70.016030	-133.691280	3
	GHR84219	1151	0	1206	0	70.032290	-133.578020	70.032390	-133.718090	6
	GHR84220	1821	0	1851	0	70.017170	-133.666500	70.044150	-133.665130	3
	GHR84222	1789	0	1820	0	70.044050	-133.638950	70.016180	-133.638950	3
	GHR84226	1756	0	1788	0	70.016250	-133.586640	70.044510	-133.586000	3
	GHR84229	454	0	506	0	70.043920	-133.578250	70.043590	-133.715700	5
	GHR81114	995	0	1005	0	70.060270	-133.737960	70.060260	-133.719440	1
	GHR81115	1013	0	1025	0	70.058400	-133.739240	70.057950	-133.710020	1
	GHR81116	976	0	985	0	70.055940	-133.738220	70.055870	-133.723770	1
	GHR81117	998	0	1005	0	70.053830	-133.737930	70.053610	-133.723760	1
	GHR81118	995	0	1005	0	70.051670	-133.738330	70.051320	-133.718290	1
	GHR81119	1012	0	1020	0	70.049480	-133.742250	70.049070	-133.720640	1
	GHR81120	974	0	990	0	70.046940	-133.739270	70.046820	-133.714800	1
	GHR81121	995	0	1000	0	70.044720	-133.730480	70.044660	-133.714230	1
	GHR81122	995	0	1020	0	70.043330	-133.742340	70.062090	-133.733260	2
	GHR81123	996	0	1020	0	70.046630	-133.720690	70.061250	-133.715130	2
	GHR81231	995	0	1000	0	70.058780	-133.865040	70.063030	-133.865040	0
	GHR81232	995	0	1000	0	70.057910	-133.852300	70.061040	-133.851010	0
	GHR81122.A	995	0	1035	0	70.043000	-133.733230	70.060630	-133.732440	2
	GHR8205	0	0	200	0	70.057190	-133.706310	70.061910	-133.732710	1
	GHR82510.2	0	0	175	0	70.045080	-133.752660	70.044940	-133.723510	1

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LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
GHR82510.2A	7425	0	7575	0	70.045450	-133.750310	70.045240	-133.724820	1
GHR82510.4A	1350	0	1525	0	70.058190	-133.751680	70.058180	-133.722600	1
GHR82610.5	6150	0	6300	0	70.053790	-133.857390	70.062330	-133.856890	1
GHR82A51.4	3075	0	3250	0	70.052180	-133.749630	70.051890	-133.720140	1
GHR83REG.05	1	0	500	0	70.060090	-133.700320	70.042370	-133.855840	6
GHR83REG.16	1	0	300	0	70.044430	-133.770810	70.024730	-133.850300	4
GHR84204	999	0	1036	0	70.029980	-133.834240	70.062740	-133.831670	4
GHR84205	1651	0	1700	0	70.016810	-133.850050	70.016750	-133.722120	5
GHR84215	1442	0	1490	0	70.027600	-133.846330	70.027940	-133.720900	5
GHR84217	1124	0	1150	0	70.030530	-133.834500	70.030320	-133.771040	2
GHR84223	975	0	998	0	70.037250	-133.851380	70.037990	-133.792220	2
GHR84225	348	0	398	0	70.039190	-133.851530	70.039230	-133.720410	5
GHR84233	559	0	603	0	70.048490	-133.851200	70.047820	-133.735400	4
GHR84235	835	0	856	0	70.050450	-133.851300	70.050830	-133.796140	2
GHR84237	604	0	649	0	70.049920	-133.737440	70.052770	-133.853210	5
GHR84239	903	0	930	0	70.054670	-133.851030	70.056150	-133.781140	3
GHR84241	650	0	692	0	70.057370	-133.851150	70.057270	-133.741210	4
GHR84245	693	0	726	0	70.061310	-133.764560	70.061560	-133.851350	3
GHR84247	880	0	902	0	70.062280	-133.796570	70.062940	-133.851380	2
GHR84217.B	1258	0	1308	0	70.030080	-133.849930	70.030110	-133.720180	5
GHR84223.B	1918	0	1944	0	70.037910	-133.791170	70.037400	-133.723080	3
GHR8107	593	0	620	0	70.057920	-133.683820	70.063890	-133.670230	2
GHR81010	230	0	262	0	70.077680	-133.577260	70.070690	-133.635570	2
GHR81078	1175	0	1250	0	70.086520	-133.573730	70.086540	-133.741120	6
GHR81101	1001	0	1060	0	70.089650	-133.736390	70.088590	-133.594330	5
GHR81103	995	0	1098	0	70.085330	-133.736600	70.083990	-133.594090	5
GHR81104	995	0	1103	0	70.082790	-133.735670	70.081830	-133.593290	5
GHR81105	983	0	1060	0	70.080580	-133.737060	70.079220	-133.595020	5
GHR81106	995	0	1071	0	70.078550	-133.736650	70.077360	-133.594570	5
GHR81107	996	0	1060	0	70.076060	-133.737290	70.075010	-133.595170	5
GHR81108	982	0	1060	0	70.073910	-133.737530	70.072620	-133.595550	5
GHR81109	995	0	1076	0	70.071700	-133.737560	70.070550	-133.586200	6
GHR81110	995	0	1067	0	70.069340	-133.733610	70.068330	-133.594320	5
GHR81111	1037	0	1100	0	70.067180	-133.739960	70.066150	-133.595630	5
GHR81112	981	0	1060	0	70.064780	-133.738390	70.063570	-133.595810	5
GHR81113	995	0	1082	0	70.062940	-133.737030	70.061680	-133.595690	5
GHR8112	1000	0	1045	0	70.105500	-133.682110	70.104600	-133.572160	4
GHR81104.B	998	0	1060	0	70.082910	-133.736760	70.082700	-133.594770	5
GHR81105.A	1001	0	1060	0	70.080520	-133.737490	70.079910	-133.595660	5
GHR81109.A	995	0	1087	0	70.071490	-133.737350	70.070550	-133.590090	6
GHR81122.B	955	0	980	0	70.070030	-133.735570	70.091930	-133.730320	2
GHR8204	1725	0	2575	0	70.078780	-133.572940	70.059590	-133.704390	5
GHR82510.8	4350	0	5350	0	70.068870	-133.583420	70.070080	-133.750550	6
GHR82510.A	5375	0	6400	0	70.079000	-133.748220	70.077610	-133.576050	7
GHR82511.0	2825	0	3325	0	70.079000	-133.747590	70.078310	-133.664020	3
GHR82510.3A	9175	0	99001	0	70.081840	-133.668150	70.060430	-133.669450	2
GHR82A51.10	0	0	975	0	70.073250	-133.583160	70.074510	-133.746870	6
GHR82A51.08	1025	0	2050	0	70.065610	-133.749050	70.064350	-133.576340	7

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LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
GHR81102	995	0	1030	0	70.089040	-133.805100	70.087490	-133.751140	2
GHR8110A	1000	0	1049	0	70.082760	-133.761930	70.105470	-133.851120	4
GHR82610.2	3075	0	3275	0	70.075730	-133.832750	70.076130	-133.866100	1
GHR82610.6	1025	0	1225	0	70.093940	-133.831850	70.094090	-133.865540	1
GHR82A61.02	0	0	200	0	70.080380	-133.832320	70.080650	-133.865950	1
GHR82A61.04	925	0	1125	0	70.089430	-133.832020	70.089600	-133.865510	1
GHR82A61.06	1850	0	2050	0	70.098390	-133.831360	70.098430	-133.864750	1
GHR84247.A	857	0	878	0	70.064420	-133.737240	70.063130	-133.791720	2
GHR84249	727	0	767	0	70.065820	-133.848600	70.066700	-133.744390	4
GHR84251	931	0	974	0	70.067390	-133.744160	70.068330	-133.852980	4
GHR84253	100	0	119	0	70.070560	-133.851060	70.070980	-133.801790	2
GHR84255	58	0	99	0	70.075250	-133.744980	70.074980	-133.853070	4
GHR84257	807	0	834	0	70.077820	-133.737240	70.076930	-133.808500	3
GHR84259	120	0	152	0	70.079510	-133.766500	70.079410	-133.851150	3
GHR84263	153	0	198	0	70.084040	-133.851140	70.084400	-133.733250	4
GHR84267	199	0	242	0	70.088780	-133.739370	70.088490	-133.852540	4
GHR84203.B	1	0	42	0	70.073430	-133.851240	70.073280	-133.745830	4
GHR84253.B	768	0	793	0	70.071470	-133.736790	70.070660	-133.802230	2
GHR84259.B	794	0	806	0	70.079960	-133.767700	70.079930	-133.736240	1
GHR84210	1067	0	1096	0	70.089370	-133.797420	70.063460	-133.797650	3
GHR81015	995	0	1040	0	70.082230	-133.911500	70.086590	-133.998860	3
GHR81201	969	0	1040	0	70.106030	-133.986130	70.105400	-133.877170	4
GHR81203	995	0	1040	0	70.098770	-133.986530	70.100950	-133.877700	4
GHR81205	995	0	1045	0	70.097060	-133.987050	70.096440	-133.876860	4
GHR81207	995	0	1035	0	70.092710	-133.983810	70.092130	-133.880050	4
GHR81209	990	0	1045	0	70.088170	-133.987900	70.087480	-133.877050	4
GHR81211	995	0	1035	0	70.083800	-133.987270	70.083030	-133.880300	4
GHR81213	979	0	1045	0	70.079120	-133.988270	70.078490	-133.876210	4
GHR81215	995	0	1030	0	70.071970	-133.982710	70.073910	-133.879350	4
GHR81217	970	0	1045	0	70.070300	-133.988450	70.069480	-133.870900	5
GHR81219	995	0	1030	0	70.063390	-133.988010	70.065080	-133.883060	4
GHR81221	985	0	1040	0	70.061120	-133.988920	70.060470	-133.883380	4
GHR81222	995	0	1055	0	70.059310	-133.983250	70.104660	-133.981060	5
GHR81223	998	0	1055	0	70.059230	-133.970340	70.104300	-133.967330	5
GHR81224	100	0	1060	0	70.058850	-133.957060	70.105980	-133.954040	5
GHR81225	995	0	1075	0	70.059180	-133.944210	70.105580	-133.941300	5
GHR81226	994	0	1055	0	70.058780	-133.931380	70.105000	-133.928220	5
GHR81227	995	0	1070	0	70.059020	-133.917770	70.106430	-133.915210	5
GHR81229	995	0	1055	0	70.058860	-133.888110	70.106540	-133.888730	5
GHR81230	997	0	1055	0	70.057850	-133.878250	70.103330	-133.875500	5
GHR81079.A	1285	0	1345	0	70.070520	-133.994920	70.070940	-133.884030	4
GHR81100.B	1000	0	99000	0	70.098390	-133.995670	70.098550	-133.999800	0
GHR81105.B	1155	0	1207	0	70.105180	-133.960420	70.075520	-133.900070	4
GHR81222.B	995	0	1065	0	70.059410	-133.983020	70.104790	-133.981260	5
GHR8206	0	0	575	0	70.094500	-133.904390	70.094170	-133.997120	4
GHR82610.1	4100	0	5000	0	70.054330	-133.968980	70.105550	-133.966160	6
GHR82610.3	5200	0	6025	0	70.106210	-133.915920	70.058780	-133.918550	5
GHR82610.4	2050	0	2800	0	70.085970	-133.997570	70.085110	-133.871950	5

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	GHR82610.8	0	0	750	0	70.103900	-133.996060	70.103170	-133.870540	5
	GHR81008	1000	0	1050	0	70.057360	-133.658600	70.055630	-133.577850	3
	GHR81012	1085	0	1135	0	70.018940	-133.688920	70.060480	-133.686450	5
	GHR81129	1100	0	1165	0	70.018510	-133.641390	70.061500	-133.640320	5
	GHR81130	995	0	1020	0	70.042110	-133.629380	70.061660	-133.627610	2
	GHR81131	990	0	1015	0	70.041890	-133.616040	70.059320	-133.613450	2
	GHR81132	1004	0	1030	0	70.041160	-133.602510	70.060160	-133.602080	2
** Subtotal **										504
** ISSERK										
	GHR81540.8	3000	0	4250	0	70.016820	-134.368010	69.968810	-134.389570	5
	GHR81027	1236	0	1246	0	69.929370	-134.869740	69.930240	-134.846530	1
	GHR81662	995	0	1195	0	69.970280	-134.779370	69.965450	-134.353210	17
	GHR81067	1257	0	1322	0	69.825060	-134.842210	69.843110	-134.718700	5
	GHR81068	995	0	1004	0	69.871990	-134.534410	69.876950	-134.505050	1
	GHR81069	995	0	1035	0	69.875990	-134.425050	69.875870	-134.352590	3
	GHR82710.1	4900	0	5925	0	69.968890	-134.387190	69.910590	-134.390460	7
	GHR82712.0	5925	0	6650	0	69.916660	-134.439030	69.916250	-134.335850	4
	GHR80309	101	0	1133	0	69.965710	-134.349520	69.966750	-134.123930	9
	GHR80310	101	0	1530	0	69.879970	-134.266950	69.986780	-134.269760	12
	GHR80311	101	0	1169	0	69.899610	-134.128970	69.899570	-134.360990	9
	GHR80312	101	0	1512	0	69.984900	-134.227430	69.879420	-134.227680	12
	GHR80515.8	1800	0	4200	0	69.930090	-133.816090	69.927610	-134.317700	20
	GHR81025	1145	0	1389	0	69.934440	-133.804750	69.934810	-134.311660	20
	GHR81063	1125	0	1310	0	69.894660	-133.813450	69.897530	-134.316860	19
	GHR8162A	995	0	1105	0	69.964230	-134.110810	69.962560	-133.803860	12
	GHR82710.2	0	0	900	0	69.983220	-134.384980	69.982870	-134.205520	7
	GHR82710.4	900	0	1450	0	69.991970	-134.205220	69.992240	-134.297030	4
	GHR82710.6	2050	0	3061	0	70.001060	-134.385360	70.000800	-134.218410	6
	GHR82711.6	3075	0	3700	0	69.947170	-134.219350	69.947660	-134.323290	4
	GHR82711.8	7250	0	7925	0	69.924690	-134.220310	69.925200	-134.332440	4
	GHR82712.2	7925	0	9800	0	69.907400	-134.325290	69.905330	-134.013260	12
	GHR82714.2	9800	0	11175	0	69.882860	-134.012820	69.884240	-134.240420	9
	GHR82714.A	1450	0	2050	0	69.992310	-134.291380	69.992170	-134.390560	4
	GHR82718.A	11175	0	12000	0	69.924750	-134.232790	69.923950	-134.095110	5
** Subtotal **										210
** NORTH_ISSUNGNAK										
	LINE10	101	0	570	0	70.080800	-134.437260	70.112080	-134.407300	4
	LINE199	101	0	411	0	70.102240	-134.476300	70.079180	-134.475910	3
	LINE204	101	0	411	0	70.102290	-134.461230	70.079320	-134.463670	3
	LINE209	101	0	411	0	70.080700	-134.450100	70.103850	-134.449680	3
	LINE214	101	0	412	0	70.080910	-134.434620	70.103970	-134.435260	3
	LINE219	101	0	411	0	70.102070	-134.423170	70.079160	-134.423750	3
	LINE500	101	0	411	0	70.082600	-134.418980	70.082600	-134.486440	3
	LINE525	101	0	411	0	70.084400	-134.481540	70.084690	-134.413740	3

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	LINE550	101	0	412	0	70.086410	-134.481490	70.086900	-134.413410	3
	LINE575	101	0	410	0	70.089530	-134.481450	70.089190	-134.413470	3
	LINE600	101	0	410	0	70.091250	-134.418240	70.091840	-134.486020	3
	LINE625	101	0	410	0	70.093800	-134.418640	70.093890	-134.486710	3
	LINE650	101	0	410	0	70.095930	-134.418210	70.096220	-134.486050	3
	LINE675	101	0	411	0	70.098400	-133.480990	70.098070	-134.413440	3
	LINE700	101	0	412	0	70.101220	-134.480730	70.100540	-134.412900	3
** Subtotal **										40
** KASLUTUT										
	GHR83100.9A	11874	0	99001	0	70.033420	-135.198180	70.033440	-135.183620	1
	GHR83100.4	99001	0	15547	0	70.038420	-135.185870	69.993200	-135.186300	5
	GHR83100.5	99001	0	13864	0	70.038410	-135.212100	69.993220	-135.212510	5
	GHR83100.6	99001	0	14707	0	70.038440	-135.237930	69.993160	-135.238130	5
	GHR83100.7	13870	0	99001	0	69.993320	-135.264130	70.038410	-135.263750	5
	GHR83100.8	14710	0	99001	0	69.993290	-135.290440	70.038410	-135.290300	5
	GHR83100.9	11423	0	99001	0	70.033460	-135.319670	70.033460	-135.183640	5
	GHR83101.0	10067	0	99001	0	70.031490	-135.319630	70.031490	-135.183620	5
	GHR83101.1	8706	0	99001	0	70.029360	-135.319660	70.029280	-135.183690	5
	GHR83101.2	6130	0	99001	0	70.027070	-135.319630	70.027080	-135.183560	5
	GHR83101.3	7499	0	99001	0	70.024830	-135.319550	70.024830	-135.183700	5
	GHR83101.7	4773	0	99001	0	70.015790	-135.319930	70.015640	-135.183560	5
	GHR83101.8	3411	0	99001	0	70.013410	-135.319810	70.013470	-135.183590	5
	GHR83101.9	2049	0	99001	0	70.011180	-135.319810	70.011150	-135.183590	5
	GHR83100.2	682	0	99001	0	70.008870	-135.319780	70.008980	-135.183560	5
	GHR83REG.03	1	0	99001	0	70.012210	-135.234650	70.023000	-135.183610	2
	GHR81001.6	1164	0	99001	0	70.044790	-135.070630	70.030000	-135.183780	5
	GHR83101.6A	7166	0	99001	0	70.018170	-135.097200	70.018350	-135.183660	3
	GHR83102.4A	1	0	99001	0	70.000050	-135.104890	70.000050	-135.183400	3
	GHR83080.A	961	0	1015	0	70.044290	-135.083020	69.991040	-135.081590	6
	GHR83100.1	12184	0	12607	0	70.040120	-135.100190	69.992650	-135.099870	5
	GHR83100.2A	12608	0	13026	0	69.993290	-135.133150	70.040180	-135.133150	5
	GHR83100.3	13027	0	13445	0	70.040050	-135.159290	69.993220	-135.159200	5
	GHR83101.4	10747	0	99001	0	70.022640	-135.097200	70.022510	-135.183760	3
	GHR83101.5	9386	0	99001	0	70.020360	-135.097180	70.020330	-135.183590	3
	GHR83101.6	6940	0	99001	0	70.018200	-135.097140	70.018050	-135.183670	3
	GHR83102.1	5454	0	99001	0	70.006750	-135.096990	70.006750	-135.183430	3
	GHR83102.2	4092	0	99001	0	70.004560	-135.096940	70.004480	-135.183440	3
	GHR83102.3	2730	0	99001	0	70.002240	-135.096910	70.002340	-135.183520	3
	GHR83102.4	1363	0	99001	0	70.000000	-135.096920	70.000050	-135.183320	3
	GHR8206	7100	0	99001	0	70.032490	-135.069700	70.021090	-135.183690	5
** Subtotal **										135
** NORTH_UKALERK										
	GHR82110.1	32175	0	99001	0	70.204730	-132.792680	70.231210	-132.789920	3
	GHR82110.2	0	0	99001	0	70.209310	-132.799360	70.208140	-132.697560	4

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	GHR82110.8	29625	0	99001	0	70.216080	-132.802030	70.214770	-132.696850	4
	GHR82111.0	2600	0	99001	0	70.218330	-132.801900	70.217000	-132.696590	4
	GHR82111.1	99001	0	34150	0	70.230910	-132.763520	70.202300	-132.766790	3
	GHR82111.6	27075	0	99001	0	70.224900	-132.801100	70.223700	-132.695950	4
	GHR82111.8	5100	0	99001	0	70.227170	-132.800060	70.226020	-132.695600	4
	GHR82112.1	34150	0	99001	0	70.204120	-132.739610	70.230600	-132.737020	3
	GHR82112.2	6375	0	99001	0	70.226400	-132.799190	70.225060	-132.695720	4
	GHR82113.7	36125	0	99001	0	70.203580	-132.699980	70.230070	-132.697240	3
	GHR82112.3A	42325	0	99001	0	70.228390	-132.800830	70.227320	-132.695400	4
	GHR82110.4	30900	0	99001	0	70.209050	-132.596300	70.210390	-132.697110	4
	GHR82110.6	1275	0	99001	0	70.211180	-132.595900	70.212590	-132.697010	4
	GHR82111.2	28350	0	99001	0	70.217950	-132.595020	70.219190	-132.696080	4
	GHR82111.4	38750	0	99001	0	70.220120	-132.595520	70.221490	-132.695980	4
	GHR82112.3	41050	0	99001	0	70.225920	-132.594210	70.227240	-132.695110	4
	GHR82112.6	7625	0	99001	0	70.227310	-132.593890	70.228560	-132.695010	4
	GHR82115.1	38125	0	99001	0	70.203130	-132.660280	70.229530	-132.657290	3
	GHR82117.1	40075	0	99001	0	70.202390	-132.607150	70.228870	-132.604110	3
	GHR8202	0	0	99001	0	70.219920	-132.658660	70.229870	-132.694810	2
	GHR82113.0	8900	0	99001	0	70.233490	-132.799970	70.232210	-132.694810	4
	GHR82113.1	35125	0	99001	0	70.257480	-132.707050	70.230220	-132.710250	3
	GHR82113.2	24400	0	99001	0	70.235380	-132.799810	70.233950	-132.694610	4
	GHR82113.8	11450	0	99001	0	70.240770	-132.799260	70.239370	-132.693920	4
	GHR82114.0	21875	0	99001	0	70.242340	-132.792220	70.241200	-132.693820	4
	GHR82114.6	14000	0	99001	0	70.247830	-132.798740	70.246390	-132.693270	4
	GHR82114.8	19100	0	99001	0	70.249550	-132.798110	70.248390	-132.693100	4
	GHR82113.4	10175	0	99001	0	70.234370	-132.593140	70.235800	-132.694290	4
	GHR82113.6	23125	0	99001	0	70.236230	-132.592790	70.237590	-132.694060	4
	GHR82114.1	37125	0	99001	0	70.257140	-132.680240	70.229870	-132.683980	3
	GHR82114.2	12725	0	99001	0	70.241500	-132.592260	70.243080	-132.693390	4
	GHR82114.4	20350	0	20550	0	70.243350	-132.592000	70.243590	-132.635800	2
	GHR82115.0	15275	0	99001	0	70.248660	-132.591450	70.250120	-132.692580	4
	GHR82115.2	17825	0	99001	0	70.250490	-132.591310	70.251950	-132.692320	4
	GHR82115.4	99001	0	17825	0	70.253650	-132.692120	70.252200	-132.581540	4
	GHR82116.1	39100	0	99001	0	70.256380	-132.627470	70.229190	-132.630880	3
	GHR82112.8A	25800	0	99001	0	70.229110	-132.593740	70.230320	-132.694920	4
	GHR82114.4A	20575	0	99001	0	70.243490	-132.592010	70.244800	-132.693180	4
	GHR8201	975	0	99001	0	70.241430	-132.569610	70.230610	-132.694900	5
** Subtotal **										140
** SOUTH_KOAKOAK										
	GHR81000.1	99001	0	99002	0	70.288120	-134.442200	70.287580	-134.451630	0
	GHR81000.4	1000	0	99001	0	70.289370	-134.502550	70.297910	-134.495040	1
	GHR81041.8	99001	0	99002	0	70.278590	-134.575240	70.283610	-134.500980	3
	GHR81821	995	0	99001	0	70.277800	-134.522390	70.280100	-134.442380	3
	GHR81000.3	99002	0	99001	0	70.282940	-134.309430	70.283350	-134.442290	5
	GHR81051	99002	0	99001	0	70.267370	-134.349810	70.297530	-134.374680	4
	GHR81000.5	99002	0	99001	0	70.338630	-134.446300	70.297460	-134.360020	6

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	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	GHR81052	99002	0	99001	0	70.338320	-134.471050	70.297740	-134.448640	5
	GHR81801	995	0	99001	0	70.325230	-134.520910	70.322250	-134.375690	5
	GHR81806	994	0	99001	0	70.311460	-134.521290	70.311670	-134.369950	6
	GHR81811	995	0	99001	0	70.300310	-134.521640	70.299580	-134.378040	5
	GHR81835.D	1000	0	99001	0	70.322240	-134.382680	70.297760	-134.459580	4
** Subtotal **										47
** SOUTH_UKALERK										
	GHR83400.1	1	0	275	0	70.087510	-133.090420	70.105930	-133.018100	3
	GHR83400.2	1065	0	1155	0	70.083580	-133.082690	70.090130	-133.060150	1
	GHR83400.3	2225	0	2331	0	70.081830	-133.079640	70.089360	-133.053020	1
	GHR83400.4	3399	0	3675	0	70.079900	-133.075060	70.099720	-133.005590	3
	GHR83400.5	4465	0	4750	0	70.078220	-133.072130	70.098390	-133.000690	4
	GHR83401.0	8654	0	8925	0	70.069490	-133.050710	70.088990	-132.982530	3
	GHR83401.7	5916	0	6295	0	70.075070	-132.963810	70.107690	-133.043580	5
	GHR83401.8	9560	0	9945	0	70.102360	-133.065310	70.069270	-132.984250	5
	GHR83401.9	9952	0	10340	0	70.100160	-133.074810	70.066780	-132.993290	5
	GHR83402.0	9186	0	9559	0	70.065830	-133.003560	70.096730	-133.085860	5
	GHR83400.2A	1156	0	1425	0	70.083470	-133.082500	70.103100	-133.015230	3
	GHR83400.3A	2330	0	2600	0	70.081780	-133.079440	70.101110	-133.011860	3
	GHR83400.5A	7550	0	7850	0	70.078220	-133.072110	70.097930	-133.002470	3
	GHR83400.6	527	0	775	0	70.114750	-132.932020	70.096900	-132.994980	3
	GHR83400.7	1691	0	1925	0	70.113290	-132.928130	70.096490	-132.987430	3
	GHR83400.8	2862	0	3100	0	70.111280	-132.923870	70.094320	-132.984410	3
	GHR83400.9	3930	0	4175	0	70.109590	-132.919630	70.092060	-132.981960	3
	GHR83401.1	7032	0	7275	0	70.106410	-132.911320	70.088950	-132.972920	3
	GHR83401.2	5000	0	5250	0	70.104340	-132.907060	70.086460	-132.970440	3
	GHR83401.3	8107	0	8350	0	70.102720	-132.902970	70.085250	-132.964490	3
	GHR83401.4	6671	0	7031	0	70.093210	-132.905520	70.124310	-132.981190	5
	GHR83401.5	5544	0	5915	0	70.118690	-133.001270	70.086480	-132.923460	5
	GHR83401.6	6296	0	6669	0	70.113050	-133.022370	70.080890	-132.943630	5
	GHR81000.3	99001	0	1387	0	70.275640	-133.225950	70.278820	-133.597700	14
	GHR81110.5	995	0	99001	0	70.252660	-133.285550	70.255280	-133.575410	11
	GHR81110.3A	1004	0	99001	0	70.263890	-133.571750	70.262780	-133.431530	5
	GHR81110.3X	979	0	1060	0	70.262600	-133.438000	70.261730	-133.295180	5
	GHR81070	995	0	1125	0	70.228990	-133.557300	70.228300	-133.245000	12
	GHR81071	1028	0	1158	0	70.217740	-133.564000	70.217560	-133.244460	12
	GHR81110.75	995	0	99001	0	70.244080	-133.570450	70.242930	-133.428470	5
	GHR81110.85	996	0	99001	0	70.239380	-133.586260	70.238450	-133.429520	6
	GHR81110.8X	986	0	99001	0	70.240500	-133.440080	70.238740	-133.300490	5
	GHR81110.95	995	0	99001	0	70.234820	-133.571440	70.233830	-133.430540	5
	GHR81099	2660	0	99001	0	70.250110	-133.613650	70.278160	-133.229540	15
	GHR81110.9X	995	0	99001	0	70.236140	-133.440350	70.234670	-133.297290	5
	GHR81110.1	995	0	1135	0	70.275570	-133.304540	70.272940	-133.563950	10
	GHR81110.2	995	0	1126	0	70.268550	-133.584490	70.265460	-133.280120	11
	GHR81110.4	995	0	99001	0	70.259530	-133.544850	70.257170	-133.288790	10
	GHR81111.05	990	0	99001	0	70.230530	-133.588810	70.229270	-133.430450	6

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
GHR81110.6	995	0	99001	0	70.250850	-133.591580	70.247990	-133.268950	12
GHR81110.7	995	0	99001	0	70.242250	-133.209610	70.246500	-133.569430	14
GHR81110.8	995	0	99001	0	70.242620	-133.568680	70.240550	-133.428590	5
GHR81110.9	1002	0	99001	0	70.237140	-133.573590	70.236060	-133.442170	5
GHR81111.0A	995	0	99001	0	70.232480	-133.572920	70.231660	-133.438950	5
GHR81110.X	1000	0	99001	0	70.231690	-133.440550	70.230260	-133.297870	5
GHR81111.0	995	0	1055	0	70.232540	-133.572890	70.231560	-133.427670	5
GHR81111.1	1002	0	99001	0	70.228160	-133.573720	70.226040	-133.432850	5
GHR81111.2	99001	0	1000	0	70.274490	-133.564390	70.223180	-133.568090	6
GHR81111.3	995	0	1057	0	70.237620	-133.554030	70.275910	-133.551580	4
GHR81111.4	1060	0	99001	0	70.273880	-133.539670	70.225990	-133.541600	5
GHR81111.5	995	0	99001	0	70.236980	-133.524340	70.274720	-133.528760	4
GHR81111.6	995	0	99001	0	70.273280	-133.513060	70.225780	-133.515440	5
GHR81111.7	995	0	99001	0	70.211590	-133.500150	70.274280	-133.499760	7
GHR81111.8	995	0	99002	0	70.285670	-133.486790	70.224980	-133.489410	7
GHR81111.9	995	0	99001	0	70.229110	-133.475280	70.275960	-133.472020	5
GHR81111.1X	1000	0	99001	0	70.227280	-133.440810	70.225910	-133.298000	5
GHR81111.2X	995	0	99001	0	70.286320	-133.450820	70.224740	-133.462620	7
GHR81113.3	995	0	99001	0	70.212370	-133.358890	70.275220	-133.352200	7
GHR81113.4	99001	0	99002	0	70.291060	-133.350300	70.223600	-133.356090	8
GHR81113.5	995	0	99001	0	70.224370	-133.330000	70.274140	-133.325990	6
GHR81113.6	995	0	99001	0	70.295490	-133.309300	70.224030	-133.316440	8
GHR81113.7	995	0	1095	0	70.207860	-133.304260	70.270060	-133.299910	7
GHR81113.8	995	0	1019	0	70.233650	-133.428060	70.237910	-133.489930	2
GHR81112.6A	995	0	99001	0	70.225450	-133.449420	70.273930	-133.445130	5
GHR81112.7A	1006	0	99001	0	70.225190	-133.435490	70.273740	-133.431760	5
GHR81112.8B	995	0	99001	0	70.225930	-133.428060	70.273610	-133.418690	5
GHR81112.9B	991	0	99001	0	70.225030	-133.409530	70.273580	-133.404240	5
GHR81113.0B	995	0	99001	0	70.225030	-133.395040	70.274050	-133.392300	5
GHR81113.1B	994	0	99001	0	70.224670	-133.382420	70.272760	-133.378600	5
GHR81113.2B	995	0	99001	0	70.225160	-133.369840	70.273470	-133.366010	5
GHR81113.8R	987	0	99001	0	70.233430	-133.418090	70.236580	-133.467180	2
** Subtotal **									410
*** Total ***									4313

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
** GOVT_REGIONAL_70-80									
70090121	2136	0	630	0	69.756830	-136.464570	70.455540	-137.716340	92
70090317	244	172000	244	230000	69.906540	-137.035510	70.041790	-135.512410	63
70080323	99001	0	1000	0	70.024740	-135.668700	70.778610	-137.006810	107
70080402	247	22000	247	100000	70.194170	-135.102970	70.807840	-136.267700	82
70080419	30	0	2300	0	70.990760	-128.753370	70.934590	-129.151550	16
70080422	247	220000	248	45200	70.128840	-135.478010	70.458420	-135.431850	58
70080510	217	104500	217	173000	69.453580	-138.968000	69.302930	-138.477040	66
70090614	245	141200	250	2000	70.271610	-134.021940	71.206280	-135.338990	116
70090720	251	0	251	60000	70.185320	-134.699390	70.308010	-133.088930	63
70080809	220	91000	220	120000	69.318590	-138.409410	69.456690	-138.166230	23
70080814	220	140000	220	163000	69.553670	-138.752730	69.535930	-138.771770	25
70090820	251	202800	252	65800	70.310090	-133.032040	71.076050	-134.037980	94
70080908	221	80000	221	163000	69.548110	-138.928760	69.371770	-138.376390	61
70090918	252	183000	253	65200	70.381110	-133.259930	70.995790	-132.763580	114
70091021	253	210000	254	20000	70.469440	-132.442290	70.653360	-131.078890	55
70081113	223	130000	223	160000	69.550610	-138.856050	69.701860	-138.521180	22
70081210	224	101500	224	160000	69.407380	-138.170720	69.321720	-138.344760	56
70091217	255	175800	256	50000	70.791500	-130.029400	71.116200	-131.480530	91
70091321	254	213000	255	20000	70.742050	-129.867680	71.110450	-130.144090	43
70081414	226	142200	226	220000	69.837390	-135.756500	69.934320	-134.228670	61
70091419	257	193000	257	230000	70.800570	-130.095510	70.934670	-129.146850	38
70091515	258	155000	258	223000	70.936100	-128.862630	71.000730	-130.595640	64
70091605	259	52000	259	110000	71.001010	-130.666320	71.015310	-132.205120	56
70091615	1530	0	2330	0	70.926190	-133.440220	70.822550	-135.392900	74
70091701	260	10000	260	150000	70.790150	-135.602620	70.345570	-139.210450	147
70081910	231	104500	231	161500	69.828250	-133.335480	69.841600	-134.339110	54
70092001	263	10000	263	43000	70.789330	-127.794800	71.103720	-128.132690	37
70082009	232	90000	232	113000	69.950580	-134.239270	70.120810	-133.881490	24
70092123	264	223000	265	63000	70.745580	-127.800900	70.824840	-129.901350	78
70092523	268	234600	269	72000	69.880750	-138.364260	70.489350	-138.840410	71
70082722	239	220000	240	63000	69.747300	-139.658040	70.485440	-139.011840	87
70082818	240	185600	241	51000	69.755700	-140.469510	70.477690	-139.413790	91
70082818.01	241	51001	241	130001	70.508900	-139.391560	71.111480	-138.767470	72
70083100	243	10200	243	85800	69.916260	-139.959610	69.783550	-137.945390	80
70083110	243	10000	243	10006	69.659640	-137.303540	69.537550	-137.131440	15
70083124	0	0	930	0	69.687050	-137.381450	70.508270	-138.334610	99
71080313	211	131500	211	210000	69.856030	-132.639190	70.677600	-132.646770	92
71070409	185	93000	185	200000	69.133320	-138.108630	69.509090	-136.491470	83
71070509	186	93000	186	170000	69.523410	-136.392290	69.809750	-135.216520	60
71070714	188	143000	189	0	69.574100	-135.919450	69.070560	-137.754290	94
71081008	222	83000	222	150000	69.128750	-138.000820	69.309860	-137.716540	62
71081311	225	110000	225	163000	69.310780	-137.736010	69.163340	-137.471790	42
71071610	197	101500	197	223000	69.838180	-132.364140	70.058640	-134.441610	104
70062312	174	120000	174	200000	69.587170	-136.197770	69.650690	-136.418440	49
70062411	175	110000	175	210000	69.749160	-136.750200	69.666810	-138.508820	72
71072511	206	110000	206	220000	69.728200	-139.080170	69.874260	-136.856490	89
70062610	177	100000	177	213000	69.570590	-138.726620	69.673420	-137.004350	92

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
71062713	178	130000	178	180000	69.646840	-137.103970	69.486160	-136.630680	41
71062812	179	120000	179	183000	69.728220	-135.616710	69.874130	-134.199840	58
72090303	247	34100	247	143000	70.667340	-127.622260	70.803600	-130.977830	126
72090303.01	247	150000	248	3000	70.822950	-131.151180	70.755810	-133.948870	104
72090303.02	248	10000	248	73000	70.758550	-134.100680	70.722710	-135.981740	75
72090419	248	192000	249	73402	69.950400	-134.887650	69.964910	-138.461730	139
72090600	250	0	250	72700	70.004070	-134.862210	70.003310	-132.967700	73
72090616	250	161500	251	80000	70.572650	-135.048220	70.102460	-131.826430	156
72090917	253	170000	254	30100	70.788780	-131.116610	70.315550	-130.900500	106
72090917.01	254	33000	254	160000	70.309530	-131.043000	69.969180	-134.632600	159
72082710	240	103000	241	150000	69.842770	-129.320740	69.979900	-131.158490	235
72082915	242	155900	242	233000	70.014550	-131.060730	69.817920	-131.838440	63
72083009	243	100000	243	183000	69.806400	-132.031420	69.636440	-133.577640	67
70083118	244	180000	245	120000	70.188920	-131.363740	70.732670	-130.451900	184
74090513	248	130000	248	144500	69.827890	-134.946470	69.716590	-134.836590	13
74090618	249	183500	249	230000	69.654710	-135.193300	69.803840	-134.560490	30
74090711	250	114000	250	200500	69.793360	-134.498890	69.585220	-134.114520	70
74090912	252	120000	252	124500	69.635620	-133.285030	69.613190	-133.457720	7
74091010	253	105500	253	130500	69.630300	-133.007110	69.654170	-133.565720	22
74081416	226	160000	226	184500	69.851430	-137.480650	69.693030	-136.954620	27
74081610	228	100000	228	125300	69.758350	-136.976040	69.568790	-136.683700	36
74081619	228	194500	229	10000	69.595380	-136.680050	69.684270	-137.998120	56
74081806	230	64000	231	40000	69.623530	-138.456150	69.387510	-137.888630	233
74092116	264	165300	264	193000	69.575850	-133.148130	69.650410	-133.733080	25
74082217	234	170000	234	180000	69.839500	-137.144300	69.838890	-136.880010	10
74082220	234	202500	234	210002	69.882130	-134.451810	69.798030	-134.360140	10
74092418	236	184000	241	214602	69.628750	-133.732910	69.753310	-134.118330	27
74082516	237	162800	237	194800	69.920290	-134.240660	69.761290	-134.393400	32
74082611	238	114700	238	171200	69.839370	-134.830700	69.813710	-135.597610	43
77090312	9	0	67	0	69.814060	-134.417680	70.131710	-134.338650	37
77090413	68	0	92	0	70.379290	-136.309190	70.580550	-136.146320	31
77090420	105	0	140	0	70.440610	-135.935100	70.401900	-135.348710	22
77091211	352	0	429	0	69.917600	-134.266360	69.802280	-135.810100	61
77091218	430	0	444	0	69.792830	-135.937160	69.736990	-136.739320	32
78090711	250	193400	250	194100	69.991020	-134.249600	69.957740	-134.380190	7
78091016	253	164500	253	200000	69.619080	-136.228040	69.689500	-135.754810	20
78091114	254	140200	254	163000	70.252280	-136.923490	70.355420	-137.152790	15
78091117	254	171500	255	43000	70.313220	-137.089780	69.813120	-137.619680	88
80080313	216	135700	217	10000	70.033030	-131.354450	70.608740	-133.487020	108
80080617	250	171300	251	22700	70.457210	-133.477360	70.101850	-133.190080	103
80080704	220	40000	220	90000	70.891940	-131.080140	71.186750	-131.690280	40
80080716	251	160000	252	21500	70.867130	-133.889680	69.920970	-133.350980	110
80088200	252	200000	253	13500	69.969790	-135.272160	70.075130	-133.702070	61
80080902	253	25900	253	52500	70.094750	-133.727540	70.035210	-133.174560	36
80080916	253	161100	254	33700	70.598180	-130.632780	70.138550	-132.785220	100
80081017	254	175100	254	192800	70.875400	-131.320650	70.790070	-131.125850	12
80081019	254	194400	254	211200	70.875600	-131.305560	70.789670	-131.109970	12
80081021	254	212800	254	222800	70.876760	-131.292860	70.789800	-131.097700	12

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	80081023	254	231200	254	1000	70.873560	-131.271610	70.798710	-131.104650	10
	80081100	255	4200	255	14400	70.874320	-131.258760	70.808030	-131.111220	9
	80081115	255	153700	256	2900	70.099080	-131.256380	70.752020	-129.451540	116
	80081214	256	140001	256	140005	70.676070	-132.708100	70.688550	-132.636640	6
	80081222	256	221300	257	44500	70.694040	-132.631880	70.462090	-133.672650	54
	80081306	257	60000	257	141600	70.465960	-133.052580	70.463360	-131.480970	60
	80081604	231	43100	231	81500	70.911120	-130.411330	71.174520	-130.821530	33
	80082114	234	221500	235	15800	71.117020	-128.135130	71.013030	-127.462910	27
	80082714	240	144200	240	163800	69.631130	-133.242260	69.743970	-133.517200	17
	80082914	242	144500	243	5300	69.798530	-134.777970	69.975820	-135.307360	101
	80088001	257	0	403	0	70.829870	-131.353000	70.845310	-131.122990	9
	80088115	1450	0	1500	0	70.802670	-130.977110	70.826470	-131.150040	7
** Subtotal **										6818
** GOVT_REGIONAL_81-82										
	82091014	253	144000	254	21000	70.128600	-133.299390	70.110240	-134.597760	98
	82091115	254	153000	254	234000	70.132400	-134.550610	69.949440	-136.056700	75
	82091320	256	205000	257	52000	70.466210	-133.499890	71.030810	-134.505980	73
	82090315.01	246	41200	246	94000	69.700350	-137.837170	69.736980	-137.001530	33
	82091414	257	140500	257	20700	70.502060	-136.098470	70.475480	-136.352710	92
	82090404	1	0	245	0	70.733100	-134.459560	70.461140	-133.470470	61
	82090621	2151	0	400	0	69.962120	-134.199520	70.131500	-133.094030	50
	82090905	401	0	630	0	70.132610	-133.338520	70.337150	-131.989940	58
	82090915	630	0	1030	0	70.267600	-132.207180	70.383130	-133.988300	105
	82091217	1181	0	1274	0	69.815350	-134.482000	69.825180	-134.457600	32
	82090315	162	0	314	0	70.300630	-134.460280	70.070020	-137.200180	109
	82090423	318	0	1042	0	69.312260	-136.786270	69.852340	-138.405290	93
	82090604	99001	0	99104	0	70.645650	-135.283920	70.717380	-135.523060	72
	82090604.01	99200	0	99208	0	70.655440	-135.354510	70.716580	-135.490830	9
	82090604.02	99300	0	99305	0	70.668650	-135.364460	70.722600	-135.465200	7
	82090604.03	99400	0	99405	0	70.688110	-135.322140	70.741230	-135.420780	7
	82090604.04	99500	0	99510	0	70.695660	-135.293090	70.747500	-135.389240	7
	82090604.05	99600	0	99606	0	70.702340	-135.241970	70.760050	-135.389240	8
	82090604.06	99700	0	99707	0	70.711010	-135.210650	70.779330	-135.410830	11
	82091109	431	0	526	0	69.904020	-132.960790	70.299420	-134.447910	73
	82091216	527	0	579	0	70.306630	-134.462940	70.638460	-135.165970	45
	82091603	582	0	638	0	70.567750	-134.197830	70.209240	-133.402740	50
** Subtotal **										1167
*** Total ***										7985

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
** NAHIDIK_1983										
	NA83-15	1	0	4000	0	69.972060	-131.504240	69.797260	-132.136220	36
	NA83-12	500	0	5278	0	69.980770	-131.494190	70.261120	-132.255920	44
	NA83-11	82	0	3900	0	70.146480	-132.952070	69.931020	-132.457310	31
	NA83-4	1	0	5175	0	70.396650	-134.596300	70.027140	-134.367910	43
	NA83-5	1	0	5125	0	70.010160	-134.618390	70.376280	-134.842790	43
	NA83-1	1	0	9600	0	69.819530	-134.400090	70.382580	-135.583730	76
	NA83-8	1	0	1745	0	69.877920	-134.691700	69.732680	-134.517110	18
	NA83-7	1	0	1775	0	69.707570	-134.917300	69.859670	-135.050920	18
	NA83-13	1	0	209	0	70.720990	-135.203250	70.715060	-135.393950	21
	NA83-3	150	0	1180	0	69.997540	-138.066510	69.801700	-137.456680	33
** Subtotal **										362
** NAHIDIK_1985										
	NA85-1	101	0	2225	0	69.247630	-137.569690	69.106360	-137.969500	22
	NA85-2	1	0	2587	0	69.120260	-137.928390	69.351110	-137.986790	25
	NA85-3	1	0	3706	0	69.347230	-137.987180	69.532720	-138.770660	37
	NA85-4	1	0	1066	0	69.533400	-138.770130	69.442260	-138.850040	11
	NA85-6	1	0	957	0	69.777310	-138.896910	69.846700	-139.044390	10
	NA85-7	1	0	8596	0	69.781550	-138.904020	69.902680	-136.698820	87
	NA85-8	1	0	2029	0	69.828950	-134.765670	69.658670	-134.582730	20
	NA85-11-12	1	0	506	0	69.983390	-135.084460	69.779030	-134.700700	61
	NA85-13-17	600	0	1081	0	69.810670	-134.422750	69.936070	-134.363830	62
	NA85-9	1	0	949	0	69.828500	-133.955170	69.766980	-133.786180	10
	NA85-18-20	1100	0	1509	0	69.771100	-133.782960	69.644620	-133.196930	50
	NA85-10	1	0	3670	0	69.948130	-133.423450	69.670650	-132.883590	38
** Subtotal **										432
** NAHIDIK_1986										
	NA86-26	1	0	135	0	69.272550	-136.586850	69.450100	-137.015180	26
	NA86-25	1	0	154	0	69.566630	-136.816180	69.354150	-136.336400	30
	NA86-24	1	0	150	0	69.427960	-136.101820	69.636540	-136.561170	29
	NA86-24B	1	0	50	0	69.636580	-136.564410	69.592130	-136.823780	11
	NA86-19	1	0	65	0	69.725400	-135.883740	69.769740	-135.557140	14
	NA86-20	1	0	244	0	69.823970	-134.686310	69.667220	-135.860430	49
	NA86-21	1	0	275	0	69.789920	-134.433090	69.614060	-135.765780	55
	NA86-22	1	0	90	0	69.526680	-135.561770	69.585640	-135.142090	18
	NA86-22-1	1	0	76	0	69.586560	-135.134950	69.604810	-134.744200	15
	NA86-22-2	1	0	61	0	69.604850	-134.743710	69.673180	-134.505950	12
	NA86-12	1	0	40	0	69.659680	-134.496840	69.683350	-134.685180	8
	NA86-13-0	1	0	175	0	69.700870	-134.743710	69.906420	-134.066990	35
	NA86-01	1	0	326	0	69.828780	-134.268050	69.733830	-132.822280	65
	NA86-07	1	0	230	0	69.666470	-132.824510	69.666740	-134.002980	46
	NA86-08	1	0	152	0	69.600040	-133.777020	69.599720	-132.998110	30
	NA86-09	1	0	105	0	69.533120	-133.013720	69.533490	-133.497960	19
	NA86-10	1	0	85	0	69.464750	-133.432560	69.464720	-133.004930	17

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	NA86-9A	128	0	160	0	69.522190	-133.430700	69.467640	-133.441150	6
	NA86-5-1	1	0	93	0	69.457170	-133.324780	69.623290	-133.326320	19
	NA86-5-1A	1	0	24	0	69.621330	-133.328280	69.619950	-133.208390	5
	NA86-4	1	0	50	0	69.620800	-133.217210	69.532890	-133.215290	10
	NA86-4-1	1	0	73	0	69.532910	-133.216930	69.402280	-133.216800	15
	NA86-4-1A	1	0	37	0	69.404050	-133.219150	69.455760	-133.324140	7
	NA86-16	1	0	106	0	69.633510	-135.260910	69.807540	-135.467510	21
	NA86-15	1	0	116	0	69.838650	-135.308410	69.649570	-135.075610	23
	NA86-14	1	0	91	0	69.703230	-134.917530	69.848780	-135.107940	18
	NA86-11	1	0	160	0	69.883460	-134.843080	69.809030	-134.746720	9
	NA86-11-1	181	0	258	0	69.770100	-134.692470	69.646150	-134.519850	15
	NA86-L1	1	0	10	0	69.433700	-135.587100	69.439420	-135.540500	2
	NA86-L2	1	0	10	0	69.440120	-135.540730	69.438740	-135.595600	2
	NA86-L3	1	0	15	0	69.439110	-135.596330	69.448850	-135.527040	3
	NA86-L4	1	0	6	0	69.449140	-135.528560	69.448780	-135.567430	2
	NA86-L5	1	0	4	0	69.455170	-135.566150	69.455900	-135.555050	0
	NA86-L6	1	0	4	0	69.456050	-135.555050	69.455820	-135.567630	0
	NA86-L7	1	0	5	0	69.456310	-135.566850	69.462430	-135.554550	1
	NA86-L8	1	0	4	0	69.462880	-135.554830	69.461910	-135.567490	1
	NA86-L9	1	0	5	0	69.461970	-135.567250	69.468880	-135.551410	1
	NA86-L10	1	0	4	0	69.468900	-135.552930	69.469070	-135.571240	1
	NA86-L11	1	0	6	0	69.469590	-135.571990	69.474660	-135.543500	1
	NA86-L12	1	0	4	0	69.474740	-135.543400	69.478910	-135.562300	1
	NA86-L13	1	0	8	0	69.480730	-135.564800	69.480300	-135.515610	2
	NA86-L14	1	0	7	0	69.480290	-135.515690	69.487030	-135.560060	2
	NA86-N-1	1	0	95	0	69.796070	-134.532120	69.888220	-134.413880	11
	NA86-N-2	100	0	685	0	69.910030	-134.386170	70.629230	-134.610670	82
	NA86-N-3	686	0	860	0	70.019670	-134.368240	70.079150	-133.820130	22
	NA86-N-4	861	0	1435	0	70.080810	-133.751770	70.356580	-131.846650	80
	NA86-N-5	1440	0	1660	0	69.951490	-134.075350	70.214010	-134.192780	30
	NA86-N-6	1670	0	1930	0	70.212270	-134.184280	70.011440	-134.652940	38
	NA86-N-7	1930	0	2375	0	69.813000	-134.601820	70.039520	-134.243590	55
	NA86-N-8	2376	0	3125	0	70.028310	-134.286090	69.945390	-134.121220	98
	NA86-3	1	0	5	0	69.740021	-133.106659	69.731773	-133.106537	1
	NA86-3A	1	0	167	0	69.735298	-133.106689	69.436729	-133.108093	33
	NA86-TUK	1	0	51	0	69.533165	-133.214798	69.464775	-133.044617	10
** Subtotal **										1105
** TULLY_1985										
	TY85-52	257	4000	257	40000	70.375630	-140.467420	70.119680	-140.474270	29
	TY85-53	257	41000	257	45500	70.107700	-140.461990	70.053510	-140.373140	7
	TY85-54	257	50000	257	63000	70.049710	-140.380260	70.048520	-140.729810	13
	TY85-18	249	203000	249	235000	69.744440	-140.966320	69.645230	-140.330000	27
	TY85-60	258	235000	259	14000	69.913830	-139.640760	69.912820	-140.019640	15
	TY85-61	259	30000	259	64000	69.914390	-140.040680	70.185520	-140.041280	30
	TY85-59	258	225000	258	234000	69.849920	-139.532060	69.906700	-139.621640	7
	TY85-12	249	31500	249	105000	69.705840	-140.983370	69.634110	-139.241640	68

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
TY85-13	249	110000	249	114000	69.628560	-139.209530	69.595950	-139.304990	5
TY85-14	249	115000	249	143000	69.596240	-139.336850	69.628180	-139.914380	23
TY85-15	249	144000	249	164000	69.630260	-139.952190	69.624370	-140.428120	19
TY85-16	249	165000	249	191000	69.625660	-140.467290	69.671390	-141.000610	21
TY85-17	249	193000	249	202000	69.676490	-141.002690	69.745300	-140.996430	8
TY85-04	247	14000	247	21000	69.682160	-138.588880	69.753970	-138.725560	10
TY85-19	250	0	250	153000	69.644650	-140.294130	70.189770	-137.378860	128
TY85-01	246	200000	246	224000	69.690190	-138.322880	69.556460	-138.761520	23
TY85-05	247	22000	247	34000	69.759100	-138.785430	69.701460	-139.044590	12
TY85-06	247	35000	247	130000	69.707210	-139.050860	70.476430	-139.066330	86
TY85-58	258	194000	258	224000	69.849790	-136.845980	69.849560	-139.495160	25
TY85-10	248	63000	248	141000	70.318610	-140.988800	69.735410	-141.008320	66
TY85-11	248	141200	248	154000	69.734770	-141.001540	69.688340	-140.671750	14
TY85-55	257	64000	257	72000	70.042470	-140.749270	69.988270	-140.748980	6
TY85-56	257	72500	257	94000	69.982190	-140.745960	69.982980	-140.224720	20
TY85-08	247	154000	247	224000	70.442630	-139.749440	69.910730	-139.748630	60
TY85-09	247	230000	248	62000	69.908190	-139.777540	70.315190	-141.004260	65
TY85-27	253	20000	253	70000	70.322130	-139.549640	69.917400	-139.548780	45
TY85-28	253	71000	253	120000	69.913280	-139.525100	69.912780	-138.574860	36
TY85-31	253	215000	254	22000	70.044370	-139.537080	69.814990	-139.549240	26
TY85-32	254	23000	254	31500	69.809440	-139.569370	69.839060	-139.702770	6
TY032A	254	53000	254	65000	69.835130	-139.683700	69.888270	-139.933430	11
TY85-33	254	70000	254	132000	69.898020	-139.946790	70.300960	-139.947820	45
TY85-35	254	161500	255	25000	70.298590	-139.308260	69.681580	-139.310610	69
TY85-36	255	30000	255	33000	69.684300	-139.321380	69.701570	-139.362840	3
TY85-37	255	34000	255	112500	69.707380	-139.376570	70.187920	-139.424410	54
TY85-02	246	224100	246	233000	69.557320	-138.763050	69.613750	-138.879110	8
TY85-03	246	234000	247	5000	69.621260	-138.853380	69.673940	-138.620580	11
TY85-22	250	230000	251	94000	69.707390	-136.483110	69.123510	-137.924090	87
TY85-23	251	95000	251	154000	69.118420	-137.927930	69.407540	-138.003080	33
TY023A	251	165000	251	174000	69.413960	-138.004840	69.478540	-138.022190	7
TY85-24	251	175000	251	194000	69.490360	-138.019210	69.615910	-137.797420	16
TY85-25	251	195000	251	220000	69.628800	-137.797930	69.761220	-138.008380	17
TY85-20	250	154000	250	203000	70.192120	-137.349270	69.894450	-136.688920	8
TY85-21	250	204000	250	230000	69.883580	-136.673490	69.707540	-136.483690	21
TY025B	252	150000	252	231000	69.756450	-138.003310	70.313390	-138.962300	72
TY85-07	247	131000	247	153500	70.476270	-139.099520	70.446750	-139.736020	25
TY85-26	252	234000	253	15000	70.329100	-139.062580	70.328760	-139.528180	18
TY85-30	253	142000	253	164000	70.040860	-138.757940	70.051810	-139.139850	15
TY030A	253	192500	253	214000	70.051150	-139.126280	70.051280	-139.525360	15
TY85-34	254	132500	254	160000	70.306450	-139.945340	70.303020	-139.356250	22
TY85-38	255	113500	255	190500	70.193680	-139.447940	70.194070	-140.976380	58
TY85-39	255	191000	255	200000	70.200130	-140.976760	70.261220	-140.987340	7
TY85-40	255	201000	255	221000	70.267750	-140.977810	70.266980	-140.625280	14
TY85-41	255	221200	256	5000	70.266620	-140.620760	70.085340	-140.602010	21
TY85-42	256	10000	256	15000	70.074320	-140.608190	70.073710	-140.804000	7
TY85-43	256	22000	256	50500	70.081400	-140.876020	70.287620	-140.874950	23
TY043A	256	72500	256	84000	70.284520	-140.872510	70.353800	-140.875200	8

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	TY85-44	256	85000	256	93000	70.360760	-140.869600	70.362430	-140.766300	4
	TY85-45	256	94000	256	120000	70.357160	-140.748890	70.221110	-140.749180	15
	TY85-46	256	121000	256	130000	70.212340	-140.744020	70.256270	-140.623900	7
	TY85-47	256	131000	256	151000	70.263900	-140.600160	70.265850	-140.152760	17
	TY85-48	256	152000	256	181000	70.257870	-140.135540	70.058590	-140.132170	22
	TY85-49	256	182000	256	190000	70.049250	-140.146360	70.049230	-140.296570	6
	TY85-50	256	191000	256	234000	70.049560	-140.334180	70.402100	-140.309020	40
	TY85-51	257	0	257	3000	70.409970	-140.369320	70.386350	-140.441210	4
	TY85-29	253	122000	253	141000	-138.530400	70.031540	-138.741440	-140.441210	0
	TY85-57	258	1815	258	193000	69.909790	-138.593280	69.853320	-138.817960	11
** Subtotal **										1719
** TULLY_1986										
	TY86-2	244	222600	245	21000	71.035580	-130.770480	70.990230	-130.010590	32
	TY86-3	245	21000	245	53500	70.990230	-130.010590	70.721250	-130.001300	30
	TY86-3A	245	91000	245	141500	70.752380	-130.000570	70.354270	-129.997600	44
	TY86-19	253	134000	254	63600	71.132350	-125.456970	71.147540	-129.851870	159
	TY86-20	254	70000	254	125000	71.147880	-129.841050	71.567000	-129.749510	47
	TY86-21	254	125000	254	161000	71.566770	-129.749560	71.695580	-129.048970	29
	TY86-22	254	162200	255	70600	71.698110	-129.054140	70.520180	-129.051060	132
	TY86-23	255	73100	255	110000	70.522030	-129.049440	70.704400	-128.418920	31
	TY86-24	255	110000	255	123500	70.703850	-128.415600	70.643930	-128.099400	14
	TY86-25	255	124000	256	64000	70.648200	-128.087850	71.913890	-125.630430	167
	TY86-26	256	64500	256	103400	71.913190	-125.603700	71.767180	-124.733020	35
	TY86-27	256	103900	256	202300	71.763150	-124.736440	71.059190	-126.049710	92
	TY86-28	256	220600	257	84400	71.063330	-126.065170	71.704850	-127.933010	98
	TY86-29	257	85500	257	140000	71.698650	-127.923130	71.873020	-126.756650	45
	TY86-29A	257	152500	257	180600	71.876370	-126.786820	71.964010	-126.130840	25
	TY86-30	257	182000	258	62500	71.963460	-126.156220	71.296510	-128.422270	110
	TY86-30A	258	92500	259	2500	71.323700	-128.329680	70.554300	-130.868810	128
	TY86-16	249	101000	249	222000	70.206840	-137.514440	70.723570	-135.183950	104
	TY86-17	249	222000	250	40000	70.723180	-135.183590	70.718190	-133.822970	50
	TY86-17A	250	165000	250	183300	70.718970	-133.821200	70.697850	-133.415020	15
	TY86-18	250	183400	251	55000	70.697940	-133.412960	71.026920	-130.872620	100
	TY86-18A	251	125400	251	161500	71.027410	-130.871640	70.989240	-130.558170	29
	TY86-1	244	103000	244	222600	70.095430	-131.026700	71.035740	-130.770260	106
	TY86-4	245	142500	245	184500	70.354010	-130.026670	70.559650	-130.890440	40
	TY86-5	245	184500	246	14500	70.559500	-130.891160	70.272270	-132.249600	60
	TY86-6	246	113000	246	122400	69.982840	-133.720470	70.012540	-133.911640	8
	TY86-7	246	122500	247	5500	70.012510	-133.916120	69.895100	-136.744170	109
	TY86-8	247	10500	247	113000	69.884190	-136.766790	69.251340	-138.195850	90
	TY86-9	247	113500	247	200000	69.247260	-138.222990	69.854040	-138.955030	74
	TY86-9A	247	204500	247	225000	69.856720	-138.957550	70.022870	-139.107440	19
	TY86-9B	248	500	248	22700	69.956320	-139.039490	70.149380	-139.236690	23
	TY86-10	248	23000	248	42500	70.152980	-139.241170	70.187680	-139.643600	16
	TY86-11	248	45500	248	71800	70.182320	-139.609860	70.185650	-139.028260	22
	TY86-12	248	71800	248	142800	70.185370	-139.028210	69.736880	-138.006170	64

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	TY86-13	248	143000	248	201500	69.735740	-137.999740	69.747520	-139.163860	46
	TY86-14	249	1500	249	71700	69.748200	-139.166310	70.201970	-138.178020	63
	TY86-15	249	71700	249	100600	70.201330	-138.181440	70.203320	-137.528080	25
** Subtotal **										2282
** BANKSLAND_1984										
	BL84-1	1	0	194	0	69.913050	-140.999240	69.739940	-141.000090	0
	BL84-11	1	0	198	0	69.874080	-140.868760	69.699830	-140.871170	0
	BL84-21	1	0	327	0	69.970010	-140.738190	69.677700	-140.742070	0
	BL84-31	1	0	461	0	70.083240	-140.606800	69.670830	-140.613100	0
	BL84-41	26	0	637	0	70.141780	-140.472470	69.696080	-140.472080	0
	BL84-51	1	0	443	0	70.021600	-140.345510	69.628530	-140.358980	0
	BL84-66	1	0	301	0	69.897730	-140.141740	69.629810	-140.165630	0
	BL84-81	1	0	348	0	69.644620	-139.969670	69.952640	-139.948210	0
	BL84-96	46	0	296	0	69.898340	-139.762040	69.679830	-139.795590	0
	BL84-111	1	0	221	0	69.762470	-139.577210	69.957950	-139.563720	0
	BL84-126	1	0	521	0	70.058220	-139.358960	69.597710	-139.407930	0
	BL84-165	1	0	478	0	70.078770	-138.960340	69.655490	-139.005130	0
	BL84-156	1	0	136	0	70.128270	-140.631090	70.128150	-140.286060	0
	BL84-158	1	0	500	0	69.992040	-140.160230	69.981380	-138.853970	0
	BL84-159	1	0	410	0	69.924380	-139.971120	69.926700	-141.035550	0
	BL84-160	141	0	486	0	69.858600	-140.436010	69.853710	-139.544340	0
	BL84-161	1	0	725	0	69.779820	-138.862670	69.791410	-140.725170	0
	BL84-162	1	0	768	0	69.713720	-138.959820	69.733250	-140.932630	0
	BL84-163	1	0	251	0	69.646450	-138.984730	69.652640	-139.644420	0
	BL1631	181	0	374	0	69.652620	-139.646760	69.634710	-140.167070	0
	BL84-310	1	0	497	0	69.413080	-138.411120	69.131290	-137.448030	0
	BL3041	1	0	141	0	69.464010	-138.450710	69.543730	-138.173980	0
	BL3011	1	0	530	0	69.544980	-138.672530	69.245000	-137.635760	0
	BL3012	1	0	395	0	69.244970	-137.636380	69.546220	-138.159580	0
	BL3021	1	0	504	0	69.670720	-137.863450	69.277380	-137.229870	0
	BL84-303	1	0	639	0	69.239180	-137.222840	69.557500	-138.562960	0
	BL3051	1	0	221	0	69.464960	-138.019350	69.597190	-137.600850	0
	BL84-210	941	0	1047	0	69.498170	-137.469710	69.589290	-137.391720	0
	BL84-209	681	0	938	0	69.624950	-137.015930	69.471380	-137.493230	0
	BL84-200	1	0	46	0	69.683530	-136.756360	69.656480	-136.841890	0
	BL84-201	49	0	105	0	69.659230	-136.814380	69.692750	-136.710360	0
	BL84-202	106	0	149	0	69.691330	-136.693530	69.666820	-136.772870	0
	BL84-203	151	0	179	0	69.674570	-136.731950	69.657240	-136.782100	0
	BL84-204	181	0	290	0	69.659260	-136.758500	69.724030	-136.551030	0
	BL84-205	291	0	401	0	69.720730	-136.543320	69.655660	-136.750600	0
	BL84-206	406	0	510	0	69.656640	-136.727720	69.718970	-136.531420	0
	BL84-207	511	0	608	0	69.707640	-136.546540	69.649460	-136.731320	0
	BL84-208	610	0	676	0	69.666500	-136.681610	69.664720	-136.851640	0
	BL84-221	1	0	107	0	69.559830	-138.803740	69.488790	-138.984130	11
	BL84-220	115	0	373	0	69.464240	-138.935200	69.637120	-138.495440	26
	BL84-301	4	0	153	0	69.454150	-138.954450	69.542830	-138.668090	15

BEAUFORT SEA GRANULAR RESOURCE
DATABASE - DIGITIZED TRACK INVENTORY

	LINE NAME	START SP (DAY)	START SP (TIME)	END SP (DAY)	END SP (TIME)	START LATITUDE	START LONGITUDE	END LATITUDE	END LONGITUDE	LINE LENGTH
	BL84-219	375	0	668	0	69.631620	-138.465350	69.437350	-138.959870	29
	BL84-224	867	0	1137	0	69.413700	-138.872330	69.580210	-138.448490	25
	BL84-225	785	0	886	0	69.463440	-138.662310	69.396310	-138.830950	10
	BL84-226	1136	0	1446	0	69.571160	-138.191620	69.381620	-138.778550	32
	BL84-233	1	0	186	0	69.560100	-138.868150	69.425110	-138.594830	19
	BL84-230	1	0	233	0	69.344220	-138.560030	69.512120	-138.894240	23
	BL84-211	1448	0	1742	0	69.328030	-138.588200	69.542110	-139.013400	30
** Subtotal **										219
*** Total ***										6119

APPENDIX II

LIST OF STUDIES COMPILED BY
MCELHANNEY GEOSURVEYS

YEAR	SPONSOR	SITE NAME	GENERAL MAP NAME	SITE PLAN NAME/NUMBER	EOR DATABASE
1985	ESSO	ARNAK K-06 C.D.G.L.A 9426 J1-3E	N/A	FIGURES 1-5 (IN REPORT)	
1985	ESSO	CAPE DALHOUSIE -ANGASAK L-03	N/A	FIGURES 1-18(IN REPORT)	
1983	ESSO	AMERK O-9	ESSO REGIONAL SEISMIC LINES 1983	PL I. - PL V.(IN REPORT)	
1983	ESSO	NIPTERK L-19	ESSO REGIONAL SEISMIC LINES 1983	PL. I - PL. V (IN REPORT)	
1983	ESSO	KADLUK O-07	ESSO REGIONAL SEISMIC LINES 1983	PL. I - PL. VII(IN REPORT)	
1983	ESSO	MINUK I-53	ESSO REGIONAL SEISMIC LINES 1983	PL. I - PL. VI (IN REPORT)	
1983	ESSO	KAUBVIK I-43	ESSO REGIONAL SEISMIC LINES 1983	PL. I - PL. IV (IN REPORT)	
1983	ESSO	ISSIGAK GRAVEL SEARCH	ESSO REGIONAL SEISMIC LINES 1983	N/A	
1983	ESSO	REGIONAL LINES 1983	ESSO REGIONAL SEISMIC LINES 1983	N/A	ESSO_REGIONAL_1983
1974	ESSO	PULLEN ISLAND GRAVEL SEARCH	FIX MARK LOCATION MAP 1 OF 9 ENCLOSURES	NUMBERS 1 - 9 ENCLOSURES (IN REPORT)	
1978	DOME	UKALERK C-50	N/A	UKALERK C-50 ANOMALY MAP (IN REPORT)	
1977	DOME	KENALOOAK J-94	N/A	KENALOOAK J-94 (IN REPORT)	
1977	DOME	KAGULIK A-75	N/A	KAGLULIK A-75 ANOMALLY MAP (IN REPORT)	
1978	DOME	SILUKOAK F-96	N/A	SILUKOAK F-96 ANOMALLY MAP (IN REPORT)	
1985	DOME	EDLOK	N/A	EDLOK SITE SURVEY TRACKPLOT 85-45.2 ENCLOSURE	
1978	DOME	NERLERK M-98	N/A	NERLERK M-98 TRACKPLOT (IN REPORT)	
1978	DOME	MITERK I-40	N/A	MITERK I-40 ANOMALY MAP (IN REPORT)	
1978	DOME	KILANNAK M-76	N/A	KILANNAK M-76 1978 (BASE OF PROBABLE LOOSELY CONSOLIDATED SAND MAP)	
1978	DOME	REGIONAL LINES 1978	DOME REGIONAL SEISMIC LINES 1978-79	N/A	DOME_REGIONAL_78-79
1981	DOME	KOGYUK	N/A	KOGYUK FIX MARK LOCATION MAP (IN REPORT)	KOGYUK
1981	DOME	REGIONAL LINES 1980	REGIONAL LINES-INDEX MAP-EXCELLENT	N/A	
1981	DOME	HERSCHEL ISLAND BORROW SITES-NORTH	HERSCHEL IS.BEAUFORT SEA LOCATION MAP	GRAVEL SEARCH NORTH SHOT PT. MAP (IN REPORT)	HERSCHEL_GSN
1981	DOME	REGIONAL LINES 1981 BAILLIE ISLAND	BAILLIE IS. BEAUFORT LOCATION MAP	SHOT POINT DHR81-LINE1,2-2 MAPS (IN REPORT)	
1981	DOME	BANKS ISLAND BORROW SITE	N/A	BANKS IS. LIMIT OF POTENTIAL BORROW PIT (IN REPORT)	
1980	GULF	REGIONAL LINES 1980	N/A	REGIONAL LINES 10 & 20 SHOTPOINT LOCATION MAP (IN REPORT)	

LIST OF STUDIES COMPILED BY
MCELHANNEY GEOSURVEYS

YEAR	SPONSOR	SITE NAME	GENERAL MAP NAME	SITE PLAN NAME/NUMBER	EOR DATABASE
1981	DOME	NERLERK RIDGE BORROW SITE	NERLERK RIDGE LOCATION MAP	NERLERK RIDGE SHOT POINT MAP(IN REPORT)	NERKERK_RIDGE
1981	DOME	HERSCHEL ISLAND SHOT POINT MAP -SOUTH	HERSCHEL ISLAND BEAUFORT SEA LOC. MAP	GRAVEL SEARCH SOUTH-SHOT POINT LOC. MAP HERSCHEL ISLAND (IN REPORT)	
1980	DOME	HERSCHEL ISLAND BORROW STUDY	N/A	HERSCHEL SHOTPOINT LOC. MAP (IN REPORT)	HERSCHEL
1981	DOME	KOPANOAR	N/A	KOPANOAR SHOTPOINT LOCATION MAP (IN REPORT)	
1980	DOME	KAGLULIK BORROW STUDY	N/A	KAGLULIK SHOTPOINT LOCATION MAP (IN REPORT)	
1980	DOME	ISSERK BORROW STUDY	N/A	ISSERK SHOTPOINT LOCATION MAP (IN REPORT)	ISSERK
1983	GULF	REGIONAL LINES 1983	N/A	REGIONAL LINE INT. FIX MARK LOCATION MAP	
1980	DOME	UVILUK BORROW STUDY	N/A	UVILIK SHOTPOINT MAP(IN REPORT)	UVILUK
1980	DOME	TARSUIT	N/A	TARSUIT SHOTPOINT LOCATION MAP (IN REPORT)	TARSUIT
1980	DOME	TINGMIARK & UKALERK BORROW STUDY	N/A	TINGMIARK-UKALERK SHOTPOINT LOCATION MAP (IN REPORT)	TINGMIARK_UKALERK
1980	DOME	SOUTH KAGLULIK BORROW STUDY	N/A	SOUTH KAGLULIK SHOTPOINT LOCATION MAP (REPORT)	STH_KAGLULIK
1982	DOME	REGIONAL LINES 1982	REGIONAL MAP (IN REPORT)	ADDITIONAL ENCLOSURES INCLUDED IN REPORT	
1982	DOME	AIVERK I-45	N/A	AIVERK I-45 FIX MARK MAP (IN REPORT)	
1982	GULF	ISSERK BORROW COMPILATION 1980-81-82	N/A	ISSERK FIX MARK LOCATION MAP (IN REPORT)	ISSERK
1981	GULF	REGIONAL BORROW INVESTIGATION 1981	LOCATION OF 1981 HI-RES SEISMIC & GEOTEC	CONTAINED IN VOL. 2 ENCLOSURES D1-D6 (IN REPORT)	GULF_REGIONAL_1981
1982	GULF	NORTH UKALERK SITE	N/A	NORTH UKALERK FIX MARK LOCATION MAP,PLATE 1 (IN REPORT)	NORTH_UKALERK
1984	GULF	ORKSOK	N/A	ORKSOK FIX MARK LOCATION MAP, PLATE 1 (IN REPORT)	
1981	GULF	WEST TINGMIARK	N/A	WEST TINGMIARK FIX MARK LOCATION MAP (IN REPORT)	WEST_TINGMIARK
1984	GULF	SAUVRAK-PITSIULAK AREA 1981,1982,1984	N/A	SAUVRAK-PITSIULAK FIX MARK MAP-COMPILATION 1981-1984 (IN REPORT PLATES 1 & 2)	
1982	DOME	SIULIK I-05	N/A	SIULIK I-05 FIX MARK MAP (IN REPORT)	
1981	DOME	PUYOK C-100	DOME REGIONAL SEISMIC LINES 1981	PUYOK C-100 FIX MARK MAP (IN REPORT)	
1981	DOME	KAGLULIK P-72	BEAUFORT REGIONAL MAP 1981 SEISMIC ETC	KAGLULIK P-72 FIX MARK MAP (IN REPORT)	
1981	DOME	NATIAK O-44	N/A	NATIAK O-44 FIX MARK MAP (IN REPORT)	

LIST OF STUDIES COMPILED BY
MCELHANNEY GEOSURVEYS

YEAR	SPONSOR	SITE NAME	GENERAL MAP NAME	SITE PLAN NAME/NUMBER	EDR DATABASE
1981	DOME	NERLERK B-67	N/A	NERLERK B-67 FIX MARK MAP PLATE1 (IN REPORT)	
1981	DOME	UVILIK P-66	BEAUFORT REGIONAL MAP 1981 SEISMIC ETC	UVILUK P-66 FIX MARK MAP (IN REPORT)	UVILUK_P66
1981	DOME	KOAKOAK I-04	BEAUFORT REGIONAL MAP 1981 SEISMIC ETC	KOAKOAK B-12 FIX MARK MAP (IN REPORT)	
1981	DOME	KOAKOAK B-35	BEAUFORT REGIONAL MAP 1981 SEISMIC ETC	KOAKOAK B-35 FIX MARK MAP (IN REPORT)	
1981	DOME	IRKALUK C-35	BEAUFORT REGIONAL MAP 1981 SEISMIC ETC	IRKALUK C-35 FIX MARK MAP (IN REPORT)	
1981	DOME	SIULIK C-07	BEAUFORT REGIONAL MAP 1981 SEISMIC ETC	SIULIK C-07 FIX MARK MAP (IN REPORT)	
1981	DOME	MITERK I-40	BEAUFORT REGIONAL MAP 1981 SEISMIC ETC	MITERK I-40 FIX MARK MAP(IN REPORT)	
1982	GULF	KUGDJUK	N/A	KUGDJUK FIX MARK LOCATION MAP (PLATE 1 IN REPORT)	
1982	GULF	KRINGALIK COMPILATION 1981-1982	IN REPORT-VERY GENERAL	KRINGALIK 1981-1982 FIX MARK LCATION MAP (PLATE 1 IN REPORT)	
1981	GULF	KOGYUK AREA	N/A	NO TRACKPLOT WITH REPORT,HOWEVER IT HAS A SEAFLOOR MORPHOLOGY MAP IN REPORT	
1983	GULF	KASLUTUT	N/A	KASLUTUT FIX MARK LOCATION MAP (PLATE 1 IN REPORT)	KASLUTIT
1981	GULF	SOUTH KOAKOAK 1981	N/A	SOUTH KOAKOAK FIX MARK LOCATION MAP (IN REPORT)	SOUTH_KOAKOAK
1980	GULF	NORTH ISSUNGNAK WELLSITE	N/A	NORTH ISSUNGNAK SHOTPOINT LOCATION MAP (IN REPORT)	NORTH_ISSUNGNAK
1985	GULF	ADLARTOK P-09	REGIONAL TRACK PLOT	ADLARTOK SITE SURVEY TRACK PLOT (IN REPORT)	
1980	GULF	AKPAK	N/A	AKPAK SHOTPOINT LOCATION MAP (IN REPORT)	AKPAK
1984	GULF	AMAULIGAK EAST, AMAULIGAK WEST	N/A	COMPILATION AMAULIGAK FIX MARK LOCATION MAP (IN REPORT)	AMAULIGAK
1985	GULF	IMMIUGAK I-06	REGIONAL TRACKPLOT ENCLOSURE 2	IMMIUGAK SITE TRACK PLOT (IN REPORT)	
1981	DOME	KOPANOAR F-15	BEAUFORT REGIONAL MAP-1981 SEISMIC ETC	KOPANOAR F-15 (IN REPORT)	
1981	DOME	KOPANOAR M-35	BEAUFORT REGIONAL MAP-1981 SEISMIC ETC	KOPANOAR M-35 FIX MARK MAP (IN REPORT)	
1981	DOME	ARLUK E-90	BEAUFORT REGIONAL MAP 1981 SEISMIC ETC	ARLUK E-90 FIX MARK MAP (IN REPORT)	ARLUK_E90
1981	DOME	REGIONAL LINES 1981	DOME REGIONAL SURVEY LINES 1981	N/A	
1982	AGC	GRID SITE 1, GRID SITE 2	N/A	N/A	
1981	AGC	HERSCHEL ISLAND TO BAILLIE ISLAND	N/A	N/A	
1984	AGC	M.V. BANKSLAND SURVEYOR-84	ENCLOSURE 1	N/A	BANKSLAND_1984

LIST OF STUDIES COMPILED BY
MCELHANNEY GEOSURVEYS

YEAR	SPONSOR	SITE NAME	GENERAL MAP NAME	SITE PLAN NAME/NUMBER	EDR DATABASE
1986	AGC	NAHIDIK 1986	N/A	DRAWING # 1 SEISMIC,DRAWING # 2 SEISMIC,DRAWING # 1 LAUNCH,DRAWING # 1 ICE SCOUR	NAHIDIK_1986
1985	AGC	TULLY 85	N/A	N/A	TULLY_1985
1977	CHS	AMUNDSEN GULF	WA10106-WA10109	N/A	
1978	CHS	MACKENZIE RIVER HYDRO. SURVEY	WA10112	N/A	
1979	CHS	OLIVIER IS ENTRANCE &APPROACHES TO TUK HARBOUR	WA10127-WA10128	N/A	
1979	CHS	SUMMER HARBOUR,WISE BAY	WA10129-WA10130-WA1013 1	N/A	
1980	CHS	EAST BEAUFORT SEA	WA10141-WA10142	N/A	
1983	CHS	BEAUFORT SEA SHIPPING CORRIDOR	WA10143-WA10144-WA1015 7	N/A	
1983	CHS	BAILLE IS.HYDRO.	WA10158	N/A	
1983	CHS	SURVEY,OBSERVATION PT. HERSCHEL IS.,YUKON COAST	WA10159	N/A	
1983	CHS	HYDRO.SURVEY SHOAL EXAMINATIONS	AW10160	N/A	
1983	CHS	NETSERK B-44-ABANDONED	WA10161	N/A	
1977	CHS	ARTIFICAL ISLAND MACKENZIE RIVER DELTA	WA10105	N/A	
1983	CHS	HYDROGRAPHIC SUR. NETSERK F-40,ABANDONED	WA10162	N/A	
1984	CHS	ARTIFICIAL ISLAND HERSCHEL IS.,YUKON COAST HYDRO. SURVEY	WA10167	N/A	
1985	CHS	KUGMALLIT BAY HYDROGRPHIC SURVEY	WA10168-WA10173	N/A	
1986	CHS	BEAUFORT SEA	WA10176	N/A	
1986	CHS	EPS DUMPSITE SURVEYS-PULLEN & HERSCHEL	WA10177,WA10178	N/A	
1984	DIAND/AGC	HERSCHEL BASIN	N/A	N/A	
1986	AGC	TULLY 86	N/A	N/A	TULLY_1986
1983	AGC	WESTERN BEAUFORT SEA	ENCLOSURE 4	N/A	
1985	AGC	SOUTH WESTERN BEAUFORT SEA	ENCLOSURES 1&2	N/A	
1987	AGC/GSC	SOUTHERN BEAUFORT SEA	N/A	N/A	

APPENDIX III

Earth & Ocean Research Ltd.

SUPER-TECH

The SUPER-TECH workstation

SUPER-TECH is an MS-DOS based marine seismic interpretation and digital mapping system developed by Earth & Ocean Research. The system uses interactive data capture and editing functions to build digital maps and interpreted seismic databases.

SUPTER-TECH can be used in the field, as a real time data interpretation and mapping system, or in an office environment for generating computer drafted maps and profiles. SUPER-TECH is currently being used on a number of different projects that require real time mapping capabilities at sea, including route investigations for telecommunication cables, power cables, pipelines, port and harbour development projects, and resource management projects.

SUPER-TECH is designed around surficial geology mapping applications with unique routines which cater to the specialised input requirements of navigation-related seismic, sidescan and sample or borehole location data. However, the source data can be any geographical, profile or generalized two- or three-dimensional data set in the form of digital files, maps, charts, seismic sections etc., either in a raw data or interpreted form.

The output products are digital, and are stored in the form of drawing files. Therefore, they are highly manipulable. Besides the ability to change drawing scale and size, change map projection, or zoom in on details, information can be partitioned, or layered, so that different components in the data can be studied separately or in groups in much the same way as transparent overlays are used in traditional "pen and paper" graphics.

SUPER-TECH interfaces with other application programs to permit the convenient transfer of existing digital databases into and out of the system. Presently, data can be transferred between SUPER-TECH and DBASE III, LOTUS, and mainframe databases. We are planning the development of interfaces to GIS (Geographic Information Systems) during 1988/89.

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SUPER-TECH Hardware

The usual hardware configuration for SUPER-TECH is shown conceptually in figure 1. Earth & Ocean's present hardware capability for SUPER-TECH applications is listed below.

IBM PC/AT	640Kb ram extended to 2Mb 80286 6MHz CPU 80287 math coprocessor PRIAM 60Mb harddrive IBM Professional Graphics monitor Colour graphics monitor	
COMPAQ 286 PORTABLE	640Kb ram. 80286 6/8MHz CPU 80287 math coprocessor MOUNTAIN 20Mb hard drive PRINCETON Ultrasync colour monitor 800x560 resolution	
PC2000 386	640Kb ram extended to 2Mb 80386 16MHz CPU 80387 math coprocessor PRIAM 40Mb harddrive PRINCETON Ultrasync colour monitor 800x560 resolution	
PC2000 XT	640Kb ram 8088 8MHz CPU 8087 math coprocessor SEAGATE 20Mb harddrive Hercules compatible monochrome display	
TALLGRASS tape backup	60Mb capacity	
GENTIAN 40"x60" digitizer	Accuracy Resolution	0.127mm 0.02mm
GENTIAN 40"x30" digitizer	Accuracy Resolution	0.127mm 0.02mm
ZETA 836 8 pen plotter	Accuracy Max. plot size Speed	0.025mm 36"x 120" 25"/sec

A SUPER-TECH workstation is configured with standard, relatively low cost microcomputers and peripheral devices used to input, process and output geological and map-related information. Following is a description of the unique software that Earth & Ocean Research has developed to process this information.

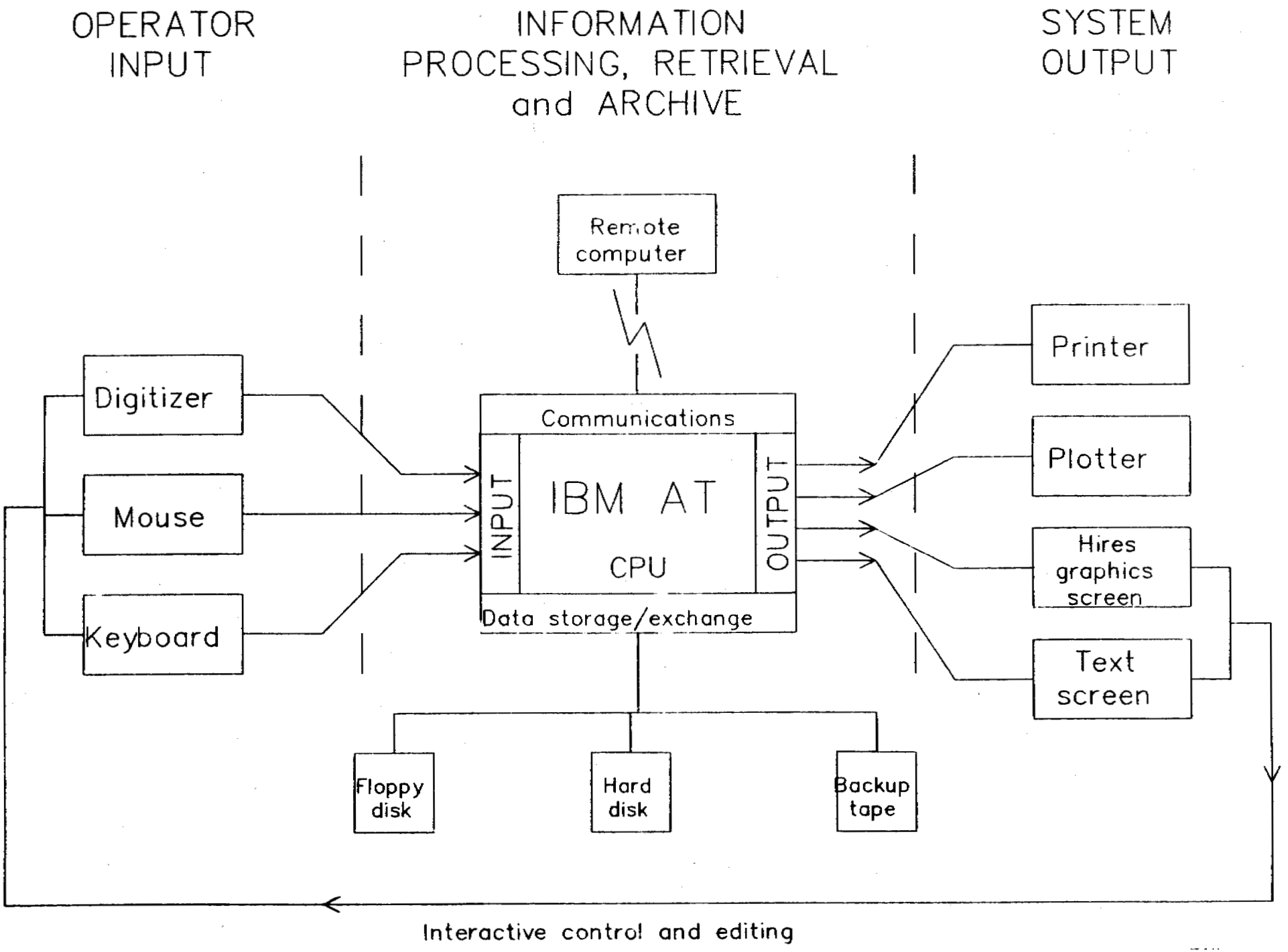


Figure 1 SUPER-TECH hardware configuration

SUPER-TECH software

SUPER-TECH is made up of a set of C language programs or modules which are integrated through a "shell" program called SUPERTEC. Flowchart 1 shows the hierarchical structure of the system. All of the functions along the line under "SUPER-TECH" are standalone modules which can be accessed either directly from DOS or via the shell program. The second level functions are accessed through the DIGITIZE MAP and DISPLAY MAP modules. They are tightly woven by the basic mapping routines, and differ only in the functions used to process their specific types of data.

AUTOCAD. Displayed output from the SUPER-TECH data-base is generated via AUTO-CAD, the industry standard MS-DOS automated drafting package. Drawing interface (DXF) files are created within the DISPLAY MAPS and DISPLAY PROFILES modules, and imported into AUTOCAD to create drawings. Primarily, we use AUTOCAD to add finishing touches like hatching, title blocks, legends, north arrow and any annotations which are needed to produce the presentation quality output on the display or the plotter. Also, the drawing files can be edited and manipulated to create screen images and plots for analysis.

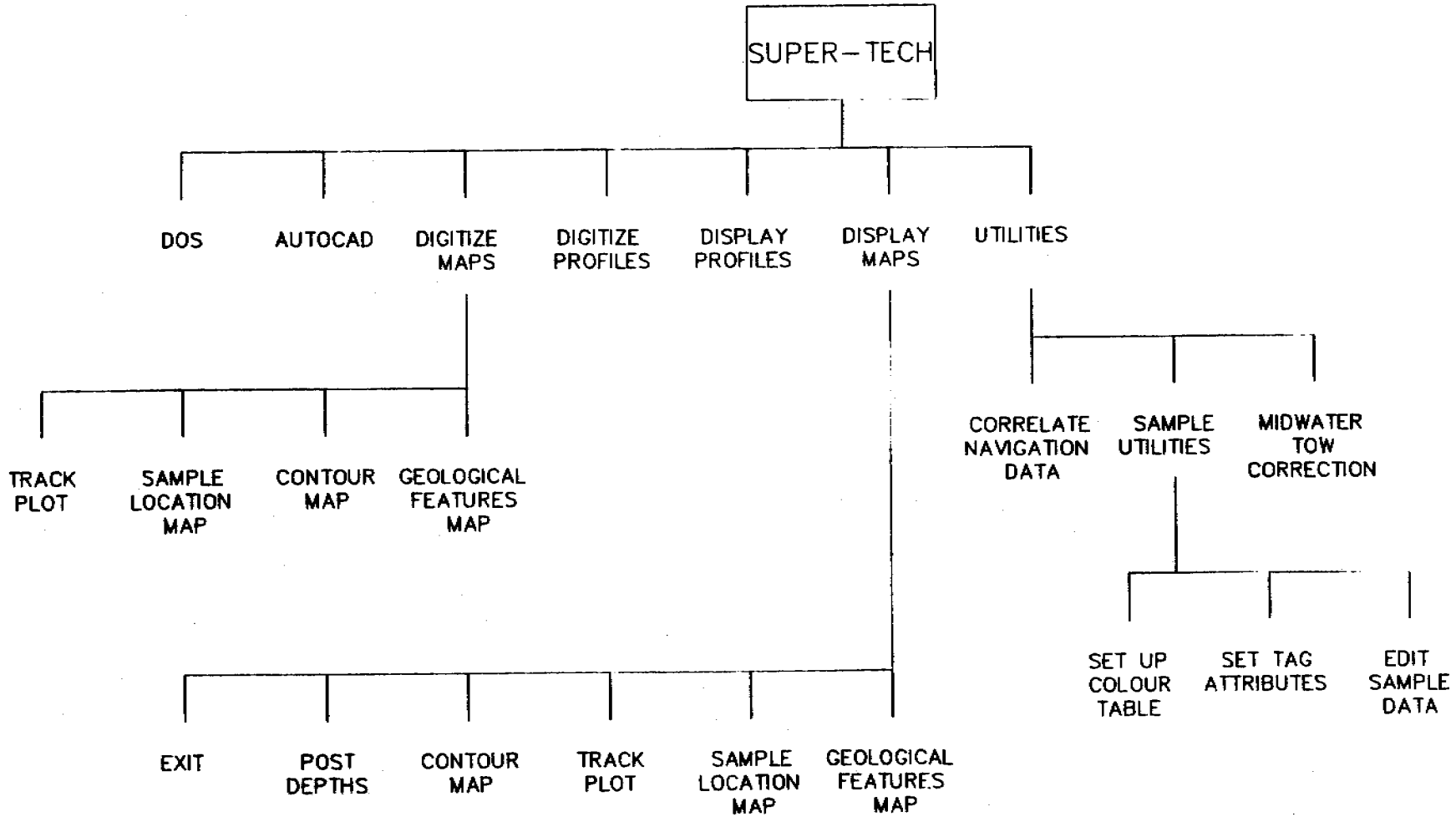
Digitizing maps (the DIGMAP program). DIGMAP includes input routines for specific types of marine geologic maps - ships' track plots, sample locations, contour maps and general features maps in which entities of any type can be digitized. Six common map projections and nine ellipsoids are available for digitizing and subsequent output of the maps. The source map projection is chosen to digitize the data, then any of the six projections specified for the output map. This is a very important capability which addresses a major requirement within the user community - conversion among scale and projection for the comparison and reconciliation of overlayed maps. Below is a brief description of the different map digitizing routines:

Track plot

Most marine geophysical/geological and oceanographic data are referenced to navigation "fixes", a sequence of numbers each of which is associated with a unique set of geographic coordinates. Measured parameters such as two-way travel time, sidescan imagery etc. are recorded as a function of fix. SUPER-TECH accommodates two types of navigation fixes - shotpoint number and day/time. The digitized data are used to build a navigation database for subsequent digitizing of seismic data, and for the production of track maps.

Sample and borehole location map

For sample and borehole locations we are interested not only in their geographic position, but also their attributes - for instance, sample type (grab, drillhole, CTD etc.), a catalogue number, summary analysis results (eg .breakdown of the grainsize of a sediment sample, lithologic data etc.), the cruise ID, and so on. This module can be used to input any geographic "point specific" data, marine or land-based. We have the option of digitizing sample locations from a source map, or importing the data in ASCII form from a host computer. Where there are many locations it is desirable to import the data if it exists, because the attribute information will generally also be contained on digital file.



Flowchart 1 SUPER-TECH MODULES

Contour map	The CONTOUR MAP module is a routine designed to efficiently digitize, and build an accessible database for, all kinds of contour maps, and can be adapted for contour diagrams in non-geo graphic coordinates. While digitizing, the operator can change linetype - solid, dashed, blank - and can leave spaces at chosen locations along the contour for the automatic insertion of labels. Closed contours are closed automatically.
Features map	This routine is designed to input arbitrary shapes or features with geographic coordinates. A marine geological example is an interpreted sidescan sonar map in which parts of the seafloor are pattern shaded along track to indicate the interpreted surficial geology; or plotted symbols represent surface morphology. Coastlines, site survey boundaries or, on land, outcrop boundaries, land use, municipal boundaries etc. can all be digitized conveniently via this module.

Displaying maps (the PLOT program). Geographic data digitized in the DIGMAP program can be imported into AUTOCAD using the PLOT program. Since the SUPER- TECH map database is maintained in geographic coordinates, any of the six available projections can be specified for the map creation. All types of map data can be input - ships' track data, point location data, contours and features.

SUPER-TECH software - seismic data processing

Digitizing seismic data (the SEIDIGIT program). SEIDIGIT is used to digitize interpreted seismic profiles. There will usually be a number of horizons interpreted on the seismic section, which may all be digitized during a single session, and each of which is uniquely accessible from the database. Generally, data from a number of seismic lines in a site will be digitized. The process of building the seismic horizon database is structured so that correlated horizons can be accessed independently over all or part of the site to generate structure and isopach postings.

The routines are designed to accommodate high resolution seismic data, and are unique in their ability to correct for mid-water tow variations and layback. The program can be generalized to the simpler task of digitizing deep seismic data which is insensitive to these effects.

Once the database has been constructed, postings can be generated automatically for specified horizons. Interpreted seismic profiles are plots of two-way travel time versus navigation fix. Consequently, in order to construct a map of horizon or isopach postings from the seismic database, the seismic picks must be referenced to geographic coordinates. The seismic database therefore operates in tandem with the navigation database to relate fixes to

geographic coordinates. (See track plot).

Postings can be generated automatically using the PLOT program for

1) two-way traveltime or depth to specified horizons; or
2) time or thickness isopachs between specified horizons.

The postings are colour coded according to data ranges, and therefore can be conveniently contoured on screen in AUTOCAD to produce a structure or isopach map.

This automated transition from interpreted seismic data to structure and isopach maps represents a revolution in the geologist's toolbox, relieving a huge workload that has been, until now, accepted as necessary in all seismic interpretation.

The postings are also available in an ASCII file format for input to automated contouring packages or other analysis programs.

Displaying profiles (the PROFILE program). Digitized seismic data for a particular line are processed to generate a DXF file for importing into AUTOCAD. Fix labels, linename header and the time (or depth) scale are automatically incorporated into the drawing. One of the most useful features of the profile generation is the ability to modify the aspect ratio of the section, and thereby identify structural elements which can often be hidden in the raw records.

Enquiries regarding **SUPER-TECH** software
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